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NEW TECHNOLOGIES AND THE DISCOURSES OF HUMAN RIGHTS, POLITICS, AND SOCIETY_

Edited by

Goran Ilik & Angelo Viglianisi Ferraro

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Thematic Issue

NEW TECHNOLOGIES AND THE DISCOURSES OF HUMAN RIGHTS, POLITICS, AND SOCIETY

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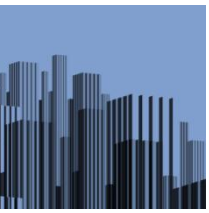

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NEW TECHNOLOGIES AND THE DISCOURSES OF HUMAN RIGHTS, POLITICS, AND SOCIETY

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Modern societies are associated with the constant flow and acceptance of information and communication technologies at home, in the workplace, in the process of education, even in recreational activities. The development of new technologies has not only challenged human rights, but also politics and society in general. Even more importantly, this new technological level has also empowered transnational corporations operating in the digital environment as hosting providers to perform quasi-public functions in the transnational context. New technologies have the potential to make significant positive contributions to the prevention, promotion, and protection of human rights and democratization, decentralization, and digitalization of politics and the advancement of society as a whole.

Simultaneously, fast advancements in new technologies generate substantial concerns about potential detrimental human rights consequences as well as the future of politics and society. The expansion of new technologies raises serious concerns about whether current political, legal, and societal structures are adequate to alleviate the human rights risks that might arise, many of which are still unknown. Furthermore, the role of corporations in both creating and utilizing new technologies is important. States, on the other hand, must focus on their responsibilities and consider how to guarantee that corporations perform properly, and to develop legal regimes that provide for such effective, responsible, and rights-respecting deployment (or non-deployment) of new technologies if technology is to be utilized for good.

So, what can we learn about technology and human rights from these seemingly contradicting narratives? Are new technologies beneficial or detrimental to human rights, politics, and society? Of course, the answer might be both.

The UN's work in the sphere of new technologies and human rights strives to address the risks while also focusing on the potential afforded by new (digital) technologies, just as it does in reality. As a result, the relationship between technology and human rights is a major subject in 'UN Human Rights Management Plan 2018-2021'. The High Commissioner for Human Rights, Michelle Bachelet, stressed the importance of "to address the human rights challenges raised by digital technology, as it transforms almost all sectors of every economy and society" (41st session of the Human Rights Council 2019).

At its 41st session in June 2019, the UN Human Rights Council adopted resolution 41/11 'New and Emerging Digital Technologies and Human Rights', in which it asked the Advisory Committee to provide a report on the potential implications, possibilities, and difficulties of new and developing digital technologies on the prevention, promotion, and protection of human rights, particularly "mapping of relevant existing initiatives by the UN and recommendations on how human rights opportunities, challenges, and gaps arising from new and new digital technologies" (New and Emerging Digital Technologies and Human Rights 2021). As a result, the UN will strive to map the human rights implications of ongoing and upcoming (new) technologies, and then build a human rights-based approach to help states in regulating their deployment.

Considering the topic's provocativeness, dynamism, and unpredictability, we decided to launch this thematic issue in response to author Shoshana Zuboff's (2019) question in her book 'The Age of Surveillance Capitalism': Can the digital future be our home? To answer that question, we chose the title 'New Technologies and the Discourses of Human Rights, Politics, and Society', to develop scientific knowledge that can be used as a set of findings, parameters, and guidelines for evaluating the performance, benefits, and challenges of new technologies in the context of human rights, politics, and society.

83 (eighty-three) authors from all around the world expressed their interest in contributing to this thematic issue. We were able to pick only 9 (nine) articles for publication in this thematic issue after a rigorous selection and assessment of the received articles, taking into account the geographical diversity of the authors and the quality of their works.

Regarding the publication of this thematic issue, we must express our deep gratitude to the reviewers for their trust and confidentiality, as well as their dedication and responsibility in the process of evaluating and selecting articles for publication.

Finally, we invite readers to consider this thematic issue and use it as a reference point or source of inspiration for their future research.

REFERENCES

1. New and Emerging Digital Technologies and Human Rights. 2019. United Nations Human Rights Council. Accessed November 20, 2021. https://www.ohchr.org/EN/HRBodies/HRC/AdvisoryCommittee/Pages/DigitalTechnologiesandHR.aspx
2. UN Human Rights Management Plan 2018-2021. 2017. Office of the United Nations High Commissioner for Human Rights. Accessed November 20, 2021. https://www.ohchr.org/Documents/Publications/OMP-2018-2021-Short-English.pdf
3. Zuboff, Shoshana. 2019. *The Age of Surveillance Capitalism*. Profile Books. ISBN: 9781781256855.
4. 41st session of the Human Rights Council 2019. 2019. Accessed November 20, 2021. https://www.ohchr.org/en/NewsEvents/Pages/DisplayNews.aspx?NewsID=24724&LangID=E

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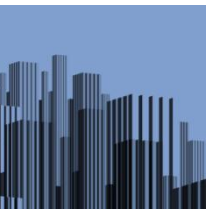

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INFORMATION AND COMMUNICATIONS TECHNOLOGY AS A TOOL TO SUBSTITUTE IN-PERSON VISITS IN THE SERBIAN PRISON SYSTEM DURING THE COVID-19 RESTRICTIVE MEASURES

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Abstract: *In an attempt to properly address one of the greatest challenges for prison administrations around the world facing Covid-19, namely, to ensure regular communication between the inmates and their families, the Serbian Penal Administration, supported by German NGO Help e.V, procured the ICT equipment aimed at substituting the in-person visits. The author decided to assess the impact of this pilot project on the right of inmates to communicate with their family members, exploring their attitudes and the attitudes of professionals/prison staff that work with them, to get both perspectives. The results of the research showed that the online communication ensured through the pilot project has significantly contributed to preserving contacts and family relations in the changing environment of the Covid-19 restrictive measures, although it cannot completely replace family visits based on, in-person contact. However, the research also led to some of the remaining obstacles to a wider application of this, substitutive approach, among others, concerning the lack of IT literacy and the both of inmates and their family members, and to the life in poverty and/or in remote country areas. Additionally, this research identified a remaining need for further financial investment in the IT equipment to ensure adequate frequency and duration of communication, but also the need to revise/upgrade an existing treatment approach to integrating modern technologies/IT literacy as tools to contribute to the effectiveness of inmates' reintegration.*

Keywords: *Prison System; Covid-19, Inmate; Communication; New Technologies; Serbia*

INTRODUCTION

The right of inmates to preserve contact with their family members plays an important role in preserving family relationships and significantly contributes to the efficient reintegration as a precondition for the reduction of recidivism. In addition to this, regular contacts have a positive impact on the psychological health and well-being of inmates. Prisoners shall be allowed under necessary supervision to communicate with their family and reputable friends at regular intervals, both by correspondence and by

receiving visits. An untried prisoner shall be allowed to inform immediately his family of his detention and shall be given all reasonable facilities for communicating with his family and friends, and for receiving visits from them, subject only to restrictions and supervision as are necessary in the interests of the administration of justice and the security and good order of the institution (UN 1955, 92). This right was further developed in the field of child-friendly justice, where comprehensively recognized as an integral part of the right to fair and humane treatment and is essential to the preparation of juveniles for their return to society (UN 1990, 59). The UN Convention on the Rights of a Child (article 37(c)) underlines that a child shall have the right to maintain contact with his or her family through correspondence and visits, save in exceptional circumstances (UN 1989).

A unanimous validity of this right is also visible from the fact that even "disciplinary sanctions or restrictive measures shall not include the prohibition of family contact" (UN 2015, 43(3)). This means that family contact may only be restricted for a limited period and as strictly required for the maintenance of security and order. In addition to the disciplinary measures, an additional factor that frequently prevents exercising the right to contact with family and friends could be seen in the fact that the institutions that detain children are often poorly located geographically, making visits from families difficult - especially those of socio-economically disadvantaged backgrounds (Nowak 2019, 269).

INMATE'S RIGHT TO COMMUNICATION IN THE COVID-19 ENVIRONMENT

Since the first case of Covid-19 was reported in China at the end of 2019, all societal forces throughout the world have been mobilized to battle the pandemic. Many essential everyday activities were suspended including traveling, meeting in-person, and even leaving the place of living during the lock-down. In just a few weeks, millions of people around the world experienced some aspects of the deprivation of liberty, including the obligation of keeping physical distance and sometimes even separation from their families. In parallel, the regime applicable to inmates becomes more restrictive. For those families whose members either parents or children were incarcerated, the pandemic has brought cancelation of the already limited communication through the visits (Bateman 2020, 4). Phone calls are often the main channel of communication between parents in prison and their children, and the restricted regimes made it more difficult for people in prison to gain access to phones (Minson 2021, 9). Both they and their families are likely to be anxious about the risk of the transmission of Covid-19 (HLPR 2020, 2). This continuous face with a fear of unknown danger, accompanied with the lack of information on the health condition of their loved ones and the disruptions in a routine because of Covid-19, can trigger depression and anxiety, but also get worse existing mental diseases conditions among

juvenile justice population, that are often related to previous trauma (Barnert 2020, 2). All of this triggered the human rights treaty bodies and international organizations around the world to call upon decreasing the negative impacts of the pandemic on persons deprived of liberty. The UN High Commissioner for Human Rights Michelle Bachelet has said: "Imprisonment should be a measure of last resort, particularly during this crisis" (Bachelet 2020). The High Commissioner urged governments and relevant authorities to work quickly to reduce the number of people in detention and to examine ways to release those particularly vulnerable to Covid-19, but also continue to provide for the specific health-care requirements of women prisoners, including those who are pregnant, as well as those of inmates with disabilities and of juvenile detainees.

Considering this, where in-person visits are restricted or prohibited as part of contagion prevention efforts, it is essential that other means of maintaining contact be made easily and freely available for all families (ACPH 2020). This should include the provision of or extension of the use of free telephone and video calling, emailing and instant messaging, and free or subsidized postal contact (Halton 2020). For young inmates and children in correctional institutions, it is of special importance that contact of this kind is frequent and flexible, to minimize anxiety and distress for children. Cost should never be a barrier to a child's contact with their family (Halton 2020).

The urgent need to find alternative methods of communication has been immediately recognized by the expert community. However, it has been most poorly implemented in practice, due to a lack of resources that have been widely redirected to health protection, as a priority within the newly occurring circumstances. One of the exceptions, and an example of good practice in this regard, could be found in the pilot project implemented by the Serbian Penal Administration during the 2020 Covid-19 restrictive measures.

RESPONSE TO THE COVID-19 RESTRICTIVE MEASURES IN THE SERBIAN PENAL SYSTEM

Since the very first case of the Covid-19 infection was confirmed in Serbia on 6 March 2020, the major concern of the prison administration was to prevent the disease from further spreading among inmates and prison staff, but also to ensure isolation and proper medical treatment for those already infected. However, since the Serbian Government opted for a very restrictive regime, including the closing of schools, a lockdown, physical distancing, travel restrictions, etc. the inmates were facing a long-term prohibition of family visits, which significantly affected their right to communicate with the family members.

Recognizing the urgency of the situation, as a part of Help's project 'Support to Socio-Economic Stability in the Western Balkans 2019-2020' funded through German Development Cooperation, the prison administration decided to establish alternative

mechanisms of communication, through the procurement of IT equipment. Some of the main criteria to implement this pilot project were the urgency to reestablish communication, mobility of the equipment, and the low price since there were no large resources available or enough time to plan and ensure additional budget. Therefore, with the support of the Help e.V. equipment worth 4,078.56 Euros, 16 tablets with a paid internet package of 20 GB per month for the next 24 months, was donated with the consent of the Administration, for use in nine institutions for the execution of penal sanctions, including the correctional institution for juveniles (Kolaković-Bojović and Batrićević 2021). The Information and Communications Technology (ICT) equipment was offered to inmates to maintain communication through the video calls with their family members, using the Viber application and therefore, free of charge. The frequency of calls varied depending of the correctional institution and the number of inmates, but the average was weekly.

METHODOLOGY

Research Phases and Sampling

The research which resulted in the results presented in this paper was conducted as a part of the comprehensive Impact Assessment of Re-socialisation program applied by NGO Help e.V. (Improvement of the treatment programs in correctional institutions for adults and juveniles – SOE03-19)[1] in 2020. The Program included various activities aimed at supporting the treatment, reintegration, and post-penal care, through the workshops, training, and procurement of the equipment aimed at improving living conditions and the treatment in the correctional institutions, but also at gaining professional skills and increasing (self)employment opportunities for convicted persons (Kolaković-Bojović and Batrićević 2020).

The research timeframe was developed before the Covid-19 pandemic, covering May-October 2020. Faced with the Covid-19 travel restrictions, the research team decided to adjust the methodological framework in terms of the research methods to be applied, and therefore, all of the three stages (May-June, July-September, and September-October) of the research were finished within the restrictive Covid-19 environment:

[1] Help e.V. Program subjected to the assessment was implemented in the period initiatives relevant for the scope of this analysis, covering the period from September 2014 to November 2020, through the several stages: Poverty reduction and enhancement of employment opportunities of marginalized and vulnerable population groups in Serbia (Help e.V.: Project Nr.: SER 99-13) May 2013-December 2016; Support to micro businesses in Serbia, phase II (Help e.V. Project No.: SER 126) June 2016-December 2017; Support to the socio-economic stability in the Western Balkans 2017-2019 (Help e.V.: Project No.: SOE-01-17); Support to socio-economic stability in the western Balkans region 2019-2020 (Help e.V.: Project No.: SOE-03-19).

Research Phase I: In this stage, the authors prepared a comprehensive, in-depth questionnaire for the beneficiaries and the prison staff to enable them to express their attitudes on the program comprehensively in writing and therefore to substitute *in vivo* interviews. The questionnaire was distributed in electronic form through email.[2]

Research Phase II: Based on the information gathered through the questionnaires, a set of additional questions for the phone call interviews was developed. After data collection and analysis experts gathered the last set of information through in-depth qualitative telephonic interviews with ex-prisoners who are beneficiaries of the self-employment program support. Finally, experts conducted interviews with the representatives of the prison administration (hereafter: PA) and partner NGOs Help e.V.

Research Phase III: In this stage, all the information collected was analyzed and the conclusions and recommendations were defined based on the findings.[3]

As earlier explained, the Help Re-socialization Program implemented many activities aimed at support to the treatment, reintegration, and post-penal care. Therefore, the whole research included 265 individuals in total, where 252 persons were included through the questionnaires distributed via management of the correctional institutions, 7 persons (10% of the total) are ex-prisoners / Help e.V. self-employment program beneficiaries, 2 persons from PA, 2 Help e.V. representatives and 2 NGO representatives.

The stratification of the sample and the selection of the participants were made in cooperation with the authors and the prison administration and the management of the 6 correctional institutions where the Program activities were implemented[4] through the two subgroups: the subgroup of inmates and the subgroup of prison staff/professionals.

For the group of inmates, the focus was on the reflection of the structure of the prison population in total. For the group of professionals, an intention was to reflect upon the Help e.V. Program beneficiaries as much as possible.[5]

[2] To enable prison administration management to choose modalities of collecting and sharing findings with the members of the expert team (hard copy originals of the questionnaires were sent by mail, scanned originals sent by email or electronically filed questionnaires).
[3] For more info on the research steps undertaken within research phases, see: (Kolaković-Bojović and Batrićević 2020).
[4] Correctional Institution in Sremska Mitrovica, Correctional Institution in Niš, Correctional Institution for Women in Požarevac, Correctional-educational Institution for Juveniles in Kruševac, District Prison in Vranje and District Prison in Sombor.
[5] The role of the Help e.V. management in this regard was limited to providing data and contacts upon the Expert Team request, in order to ensure the integrity of the research process.

Table 1: Status/Affiliation of Interviewed Persons (Source: Author's depiction)

Institution	Convicted Persons	Employees	Director
Correctional Institution in Sremska Mitrovica	20	13	/
Correctional Institution in Niš	113	7	/
Correctional Institution for Women in Požarevac	11	1	/
Correctional-educational Institution for Juveniles in Kruševac	49	20	1
District Prison in Vranje	3	5	1
District Prison in Sombor	5	3	/
TOTAL	**201**	**49**	**2**

When it comes to the age structure of the sample, within the subgroup of inmates, the predominant group were inmates 21-40 years old (51.74%), followed by 18-21 years old group and 40-65 (18.9%). This information plays an important role since the age of inmates significantly influences their online communication ability/preferences and their attitude regarding the usage of modern technologies, in general.

Table 2: Age of Interviewed Persons - Convicted Persons (Source: Author's depiction)

Institution	Under 18	18-21	21-40	40-65	Over 65
Correctional Institution in Sremska Mitrovica	/	1	15	4	/
Correctional Institution in Niš	3	6	75	26	3
Correctional Institution for Women in Požarevac	/	/	6	5	/
Correctional-educational Institution for Juveniles in Kruševac	11	35	3	/	/
District Prison in Vranje	/	/	2	1	/
District Prison in Sombor	/	/	3	2	/
TOTAL	**14**	**42**	**104**	**38**	**3**
%	**6.96%**	**20.89%**	**51.74%**	**18.9%**	**1.49%**

This information may seem less relevant for the subgroup of prison staff/professionals, but in fact, it is important for shaping their views on the procurement and use of ICT equipment, both in terms of their computer literacy, to accept novelties, and to support inmates to maintain this way of communication, especially those missing necessary skills. Considering this, most of the interviewed employees (65.31%) were mid-age, while 32.65% were young or early mid-age. Only one interviewed employee (2.04%) was over 65.

Table 3: Age of Interviewed Persons – Employees (Source: Author's depiction)

Institution	Under 18	18-21	21-40	40-65	Over 65
Correctional Institution in Sremska Mitrovica	/	/	8	5	/
Correctional Institution in Niš	/	/	1	5	1
Correctional Institution for Women in Požarevac	/	/	/	1	/
Correctional-educational Institution for Juveniles in Kruševac	/	/	4	17	/
District Prison in Vranje	/	/	2	3	/
District Prison in Sombor	/	/	1	2	/
TOTAL	**0**	**0**	**16**	**32**	**1**
%	**0%**	**0%**	**32.65%**	**65.31%**	**2.04%**

In addition to the age of interviewed persons, for the first subgroup, important information was the duration of the imposed sanctions, considering the seriousness of the impact which long-term sanctions have on the knowledge and skills of inmates. One of the main fields where this impact goes to a significant extent is the ability to use modern technologies, considering their increasing importance for everyday life.

Taking this into account, it is important to mention that 30.92% of inmates were sentenced to 3-5 years in prison, while 48.02% were sentenced to prison in duration over 5 years. This means that 79% of the interviewed inmates were serving long-lasting sentences.

Table 4: Imposed Sanction (Source: Author's depiction)

Institution	Up to 1 year	1-3 years	3-5 years	More than 5 years
Correctional Institution in Sremska Mitrovica	/	2	8	10
Correctional Institution in Niš	1	19	37	56
Correctional Institution for Women in Požarevac	/	3	1	7
District Prison in Vranje	3	/	/	/
District Prison in Sombor	/	4	1	/
Correctional-educational Institution for Juveniles in Kruševac	** Since in the case of juveniles, educational measure – remand to the educational-correctional institution is imposed, its initial duration is the same. Namely, according to article 21 paragraph 3 of the Law on Juvenile Criminal Offenders and Criminal Legal Protection of Juveniles (Official Gazette of the Republic of Serbia, No. 85/2005), a juvenile stays in an educational-correctional institution for at least 6 months and at maximum 4 years, but the court is obliged to reconsider every 6 months whether there are grounds to stop the enforcement of the educational measures or to replace it with another educational measure.*			
TOTAL	**4**	**28**	**47**	**73**
%	**2.63%**	**18.42%**	**30.92%**	**48.02%**

When it comes to the gender structure of the sample, the male was predominant (93.53%), which approximately reflects the gender structure of all wards in the institution. For the employees, the sample was not ideally balanced, but reflected the real gender structure of professionals in selected prisons, with 61.22% of male and 38.78% of female professionals interviewed.

Table 5: Gender of Interviewed Persons (Source: Author's depiction)

Institution	Convicted Persons		Employees	
	Male	Female	Male	Female
Correctional Institution in Sremska Mitrovica	20	/	7	6
Correctional Institution in Niš	113	/	7	/
Correctional Institution for Women in Požarevac	/	11	/	1
Correctional-educational Institution for Juveniles in Kruševac	47	2	10	10
District Prison in Vranje	3	/	3	2
District Prison in Sombor	5	/	3	/
TOTAL	**188**	**13**	**30**	**19**
%	**93.53%**	**6.46%**	**61.22%**	**38.78%**

For the same reason as for the age structure, the education level of the interviewed persons has been considered, as an important factor that has an impact on the expectations of inmates, it is also associated with the capacities to mastery the ICT skills and to accept novelties.

While, as expected, the employees were mostly highly educated, 40% of inmates have finished only primary school, while 46% of them have finished high school at the moment of conducting the research.

Table 6: Education Level of Interviewed Persons (Source: Author's depiction)

Institution	Without Elementary School	Elementary School	High School	Secondary School or Faculty
Education Level of Interviewed Persons – Convicted Persons				
Correctional Institution in Sremska Mitrovica	1	7	12	/
Correctional Institution in Niš	4	36	63	10
Correctional Institution for Women in Požarevac	/	2	6	2
Correctional-educational Institution for Juveniles in Kruševac	10	32	6	1
District Prison in Vranje	/	2	1	/
District PrisoninSombor	/	1	4	/
TOTAL	**15**	**80**	**92**	**13**
%	**6%**	**40%**	**46%**	**6.5%**

Education Level of Interviewed Persons – Employees				
Correctional Institution in Sremska Mitrovica	/	/	7	6
Correctional Institution in Niš	/	/	3	4
Correctional Institution for Women in Požarevac	/	/	/	1
Correctional-educational Institution for Juveniles in Kruševac	/	/	6	14
District Prison in Vranje	/	/	1	4
District Prison in Sombor	/	/	1	2
TOTAL	**/**	**/**	**18**	**31**
%	**0%**	**0%**	**36.73%**	**63.27%**

FINDINGS

The answers gathered from the interviewed persons showed that 68.16% of inmates directly took part in the Project activities, compared with 87.75% of employees.

Table 7: Participation of the Interviewed Persons in the Project Activities (Source: Author's depiction)

Status/Affiliation of Interviewed Persons	Inmates		Employees	
Participation in the Project activities	YES	NO	YES	NO
Correctional Institution in Sremska Mitrovica	18	2	13	/
Correctional Institution in Niš	93	20	7	/
Correctional Institution for Women in Požarevac	9	2	1	/
Correctional-educational Institution for Juveniles in Kruševac	13	35	14	6
District Prison in Vranje	3	/	5	/
District Prison in Sombor	/	5*	3	/
TOTAL	**137**	**64**	**43**	**6**
%	**68.16%**	**31.84%**	**87.75%**	**12.25%**

When it comes to the attitudes of the interviewed persons on this supplementary method of communication with the family members, 52.56% of them evaluated this experience as 'excellent', while 25.64% said that this experience was good. This means that almost 80% of the interviewed inmates gave positive evaluations of this way of this substitution to in-person visits. At the same time, 19.23% of inmates said that this experience was satisfactory. Only 2.56% evaluated it as unsatisfactory.

Table 8: How the Interviewed Persons Evaluate the Program in Which They Participated – Inmates (Source: Author's depiction)

Institution	Excellent	Good	Satisfactory	Unsatisfactory
Correctional Institution in Sremska Mitrovica	13	3	4	/
Correctional Institution in Niš	48	27	16	2
Correctional Institution for Women in Požarevac	8	3	/	/
Correctional-educational Institution for Juveniles in Kruševac	10	5	7	2
District Prison in Vranje	2	1	/	/
District Prison in Sombor	1	1	3	/
TOTAL	**82**	**40**	**30**	**4**
%	**52.56%**	**25.64%**	**19.23%**	**2.56%**

This evaluation was a bit different among professionals working in prisons, where 39.53% of interviewed employees said that this innovation was excellent, while 46.51% evaluated it as 'good'. Therefore, the higher percentage of respondents in this subgroup gave a positive evaluation (86.04%), but the distribution between 'excellent' and 'good' was different than in the subgroup of inmates.

Table 10: How the Interviewed Persons Evaluate the Program in Which They Participated – Employees (Source: Author's depiction)

Institution	Excellent	Good	Satisfactory	Unsatisfactory
Correctional Institution in Sremska Mitrovica	7	5	1	/
Correctional Institution in Niš	5	7	/	/
Correctional Institution for Women in Požarevac	/	/	/	/
Correctional-educational Institution for Juveniles in Kruševac	/	4	1	/
District Prison in Vranje	2	2	/	/
District Prison in Sombor	3	/	/	/
TOTAL	**17**	**20**	**3**	**0**
%	**39.53%**	**46.51%**	**6.97%**	**0%**

In addition to the general evaluation which included the four possible answers to the respondents (from unsatisfactory to excellent), they were encouraged to express their opinion and to provide the main reasons (not) to opt for this model of communication. Considering this, the inmates underlined several positive aspects of this substitute to in-person visits. As expected, they appreciated this opportunity to bridge the communication gap caused by the restrictive measures. Most of them underline how precious was for them, not only to hear but also to see their family members and to

benefit from the emotions expressed nonverbally. A bit unexpected, but some of them (mostly juveniles) explained that they experienced positive emotions in the online 'contact' with the familiar persons and objects, like pets, homes, or gardens, or we're happy because their parents were in the position to 'visit' them without spending money. At the same time, the most frequently underlined negative side of this innovation was the insufficient frequency and the duration of calls (usually weekly). In addition to this, they argued that there is no reason to limit these calls to the use of Viber.

Finally, they frequently reported a lack of resources on the side of their family members to access the internet at all or to smartphones or similar devices. Considering this, most of them suggested procurement of additional devices, but also expanding the usage of the devices to increase ICT and other skills and knowledge. Some juveniles suggested being allowed to use the devices in the context of spare time (e.g. to play video games).

When it comes to the attitudes of the professionals, in addition to what has been identified by inmates, they emphasized the stimulative effect of this substitute to person-visits to inmates, especially for juveniles and youngsters, "since it facilitates a stronger emotional interaction between them and their family members and encourages them to express their emotion, which has a positive impact on their future behavior" (Kolaković-Bojović and Batrićević 2021).

Concerning the negative sides of this innovation, in addition to what has been said by inmates, the professionals underlined an issue of the access to this way of communication for family members who live in poverty and or in rural, remote areas, especially those who are illiterate. They also provided some practical recommendations, related to the procurement of some additional equipment to ensure protection and long-life of the devices, like tabled cases and tablet holders.

They reiterated the need to step up with the use of apps other than Viber, to enable, among others, the employees in the educational-correctional institution in Kruševac to communicate and work with juveniles' family members online/without additional travel costs or their absence from the workspace (Kolaković-Bojović and Batrićević 2021).

DISCUSSION AND CONCLUSIONS

As the research findings showed that there is unanimous support to the introduction of the alternative modalities of the communication between the inmates and their family members, obviously the focus should be on the reasons they might trigger the differences in evaluation of this pilot project as 'excellent' or 'good' identified between inmates and employees. Namely, in both categories, approximately 80% or more respondents evaluated this innovation as 'excellent' or 'good', but there is a

significant majority of the employees/professionals who rather see it as 'good', but not 'excellent', compared with the inmates who mostly responded with 'excellent'.

The reasons for that could be found in the fact that the inmates perceived this experience as a highly appreciated solution for their unexpected (and even dramatic) break/termination of in-person visits and therefore disregard potential negative sides of this pilot project.

Contrary, the employees, as professionals, are more aware of all the limitations of such a substitute, and see it rather as a temporary, or rather a transitional solution, either until all back to the 'old normal', or until shortcomings are identified in this transitional stage are overcome (Kolaković-Bojović and Batrićević 2021).

Additional attention should be paid to the equity in accessing the online substitutes to in-person visits. Namely, it seems that the respondents from both groups have recognized this as one of the main issues, since a number of the family members have no access to the internet, smartphones or computers, due to poverty or ICT illiteracy. This has also reiterated the need to reconsider access to this right, not only within the online environment, but in the 'old normal', too, since the same, or even bigger challenges the families from vulnerable groups face daily in their attempt to organize regular, in-person visits to their loved ones who are deprived of liberty in remote institutions. With this in mind, it seems that this pilot should be used also to explore to what extent this 'online modality' can substitute hardly affordable in-person visits, especially in situations where the distance between the place of living and the correctional institution large to the extent that the smartphone or tablet is cheaper than a travel ticket (Kolaković-Bojović and Batrićević 2021).

On the other side, within the prison community, this also brings the issue of apps to be used for this purpose, but also of the number of devices available to inmates if the prison administration decides to expand this way of communication. If accepted as an option to be implemented, procurement of additional devices, together with a widening the apps allowed to be used, can result not only in enhancing communication between the inmates and their families but also to go further, to the multipurpose use of ICT, including improvement of the e-literacy in general. Considering the growing importance of the ICT for maintaining daily-life duties and therefore widening the specter of life opportunities preconditioned by the knowledge of ICT, this should be properly recognized in the context of educational activities in correctional institutions. Gaining new knowledge and skills in this field can significantly contribute to reintegration processes, especially in terms of employment and self-employment after being released from the correctional institution. Therefore, despite the fact it has been introduced as a remedy for the extraordinary situation, this innovative approach should not be abandoned after lifting down all the restrictive measures associated with the Covid-19 pandemic.

Contrary, this pilot project should be used by the prison administration as a fruitful ground to build upon it in a way to introduce a modern, hybrid model of approaching the right of inmates to communicate with their families.

Furthermore, it is time to consider possibilities to expand the use of ICT technologies as a part of treatment, but also in the scope of preparation for the release. This last point is of great importance in the context of enabling a better insight into the family environment of juveniles to prepare them and their family members for a new, post penal life chapter.

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Statement of human rights:
All procedures performed in studies involving human participants were following the ethical standards of the institutional and/or national research committee and with the Declaration of Helsinki and its later amendments or comparable ethical standards.

Statement on the welfare of animals:
This article does not contain any studies with animals performed by any of the authors.

Informed consent:
Not applicable.

REFERENCES

1. ACPH. 2020. Technical Note: Covid-19 and Children Deprived of their Liberty. The Alliance for Child Protection in Humanitarian Action.
2. Bachelet, Michelle. 2020. Urgent action needed to prevent Covid-19 "rampaging through places of detention" – Bachelet. March 25. Accessed August 18, 2021. https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=25745&LangID=E
3. Barnert, Elizabeth. 2020. "Covid-19 and Youth Impacted by Juvenile and Adult Criminal Justice Systems." Pediatric Perspectives 146 (2). DOI: https://doi.org/10.1542/peds.2020-1299
4. Bateman, Tim. 2020. "Unjust pains: the impact of Covid-19 on children in prison." Journal of Children's Services, 201-208.
5. Halton, Lucy. 2020. Covid-19 and the Rights of Children of Parents who are incarcerated: Impacts and Recommendations. Child Rights Connect Working Group on Children of Incarcerated Parents.
6. HLPR. 2020. Children in prison during the Covid-19 pandemic A briefing from the Howard League for Penal Reform. London: Howard League for Penal Reform. Accessed August 10, 2021.
7. Kolaković-Bojović, and Ana Batrićević. 2020. Impact Assessment of Re-socialisation program applied by NGO Help e.V. (Improvement of the treatment programmes in correctional institutions for adults and juveniles – SOE03-19). Belgrade: Institute of Criminological and Sociological Research.
8. Kolaković-Bojović, Milica, and Ana Batrićević. 2021. "Children in Correctional Institutions and the Right to Communicate with their Families during the Covid-19 Pandemic." Teme (4).
9. Minson, Shona. 2021. "The impact of Covid-19 prison lockdowns on children." Oxford.
10. Nowak, Manfred. 2019. The United Nations Global Study on Children Deprived of Liberty. Geneva: Office of the UN High Commissioner for Human Rights.
11. UN. 1989. "Convention on the Rights of the Child Adopted and opened for signature, ratification, and accession by General Assembly entry into force 2 September 1990, in accordance with Article 49."
12. UN. 2015. "United Nations Standard Minimum Rules for the Treatment of Prisoners (the Nelson Mandela Rules) adopted by the UN General Assembly Resolution adopted by the General Assembly on 17 December 2015."

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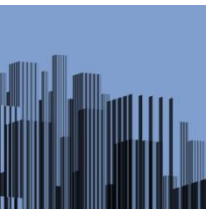

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ALGORITHMS AND FUNDAMENTAL RIGHTS: THE CASE OF AUTOMATED ONLINE FILTERS

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Abstract: *The information that we see on the internet is increasingly tailored by automated ranking and filtering algorithms used by online platforms, which significantly interfere with the exercise of fundamental rights online, particularly the freedom of expression and information. The EU's regulation of the internet prohibits general monitoring obligations. The paper first analyses the CJEU's case law which has long resisted attempts to require internet intermediaries to use automated software filters to remove infringing user uploads. This is followed by an analysis of article 17 of the Directive on Copyright in the Digital Single Market, which effectively requires online platforms to use automated filtering to ensure the unavailability of unauthorized copyrighted content. The Commission's guidance and the AG's opinion in the annulment action are discussed. The conclusion is that the regulation of the filtering algorithms themselves will be necessary to prevent private censorship and protect fundamental rights online.*

Keywords: *Algorithms; Content Recognition; Upload Filters; Censorship; Human Rights; Intermediary Liability; AI*

INTRODUCTION: THE ROLE OF ALGORITHMS ONLINE

Algorithmic software tools increasingly tailor our online experience and thus shape our view of the world. Google's search algorithm was the key to its quick rise and eventual dominance over other search engines as it allowed its users to find the most relevant results on the web in a fraction of a second. If a piece of information published online is not indexed by Google's bots or has a low ranking in the presentation of Google's search results it will be effectively invisible to a vast majority of internet users. Algorithmic ranking and recommender systems play an essential role in social networks where they determine which posts will be displayed in a user's news feed, usually based on the user's interests and previous interactions (Llansó 2020, 1). All done to attract the user's attention, encourage the sharing of posts, and increase the time spent on the network and thus advertising opportunities. By playing on human psychology, algorithms close users into opinion bubbles where users are exposed only to

information confirming their pre-existing beliefs and in which hate speech and other harmful content can flourish as is most likely to be shared and liked.

Online advertising, controlled to a large part by Facebook and Google, is also based on algorithms following the consumer's preferences. Online shops will use algorithms to present goods that the user browsing their website is most likely to purchase (e.g., based on their browsing history, clicks, and previous purchases). Finally, algorithms are also used to select the information that users will be prevented from seeing. Online forums, reader comment sections, and social networks employ algorithmic tools to filter out profanities, ethnic slurs, insulting language, etc., from their user's posts (Krönke 2020, 147). Online video platforms utilize similar systems (such as YouTube's Content ID) to identify and take down copyrighted content that was posted without authorization by copyright owners. Of course, the use of filtering algorithms can go much further and be (mis)used for political purposes. China is well known for blocking from its internet users any information that may be seen as critical to its political system or its leaders.

The word algorithm is used here as a catchall for any set of computer-implementable instructions used to sort, rank, and filter information: from simple computer programs searching for specific pre-defined expressions to advanced artificial intelligence (AI) systems that can process large data sets to achieve goals used in automated applications (Wischmeyer, Rademacher 2020, vii). Since the internet is now the basic information substructure of modern society, any technology that selects or limits access to information online may interfere with the exercise of fundamental rights online, particularly the freedom of expression and information guaranteed by article 11 of the Charter of Fundamental Rights of the EU.

The adoption of two major pieces of legislation in this connection is currently underway in the European Union. The draft Digital Services Act (COM(2020) 825 final), proposed by the European Commission in December 2020, will require very large online platforms to implement specific measures to mitigate systemic risks, such as the spreading of harmful disinformation. It is hard to conceive how to do that apart from relying on algorithmic tools for content moderation or recommendation. The draft Artificial Intelligence Act (COM(2021) 206 final), proposed in April 2021, will lay down harmonized rules for the use of AI systems, including the prohibition of certain AI practices and transparency rules for AI systems. However, these are future legislative acts the precise content of which is not yet certain. This paper will focus on the rules governing a specific set of algorithmic online filters the use of which is (indirectly) mandated by the Directive (EU) 2019/790 on Copyright in the Digital Single Market (DSM Directive), which entered into force in 2019 and requires online platforms to make best efforts to ensure the unavailability of unauthorized copyright works uploaded by their users.

PROHIBITION OF GENERAL MONITORING OBLIGATIONS

To protect the nascent internet intermediary industry from excessive legal risks arising from potential liability for any illegal information transmitted or stored by the users of their services, the E-Commerce Directive (2000/31/EC) introduced a haven for online intermediaries in 2000. The providers of mere conduit and cashing were exempt from liability as long as they provide the services in a technically correct manner and do not in any way tamper with the information transmitted or stored. Hosting, however, is a wider category of online services consisting of longer-term storage of information provided by the recipient of the service. Apart from the hosting of websites and blogs, this includes social networks, online video and music platforms, online marketplaces, cloud computing services, etc. Since hosting providers have greater technical possibilities of reviewing and removing the hosted information, they were exempt from the liability in exchange for cooperation in removing any illegally hosted content once notified about the illegality under the notice-and-takedown system (Edwards 2009, 65).

As long as the internet intermediary service remains "of a mere technical, automatic and passive nature" (recital 42), its provider is not required to check the legality of the information transmitted or stored, or to actively search for any unlawful content. The E-Commerce Directive reinforces this principle by expressly prohibiting the Member States from imposing on intermediary service providers any general obligation to monitor the information which they transmit or store, or any general obligation actively to seek facts or circumstances indicating illegal activity (article 15). Member States may only require service providers to inform the competent public authorities of alleged illegal activities by their users. The prohibition of imposing general monitoring obligations has been an essential tenet of the EU's internet regulation for more than twenty years. As the only feasible manner of sifting through the mounds of data uploaded daily by the users of social networks and other online platforms is by using automated algorithmic tools, this rule effectively banned the Member States from prescribing the use of such filters. Service providers, however, are free to use sorting, ranking, recommending, and filtering algorithms for their business purposes if they choose so.

Whereas article 15 of the E-Commerce Directive bans the imposition of general monitoring obligations, article 14(3) allows national courts or competent administrative authorities to order the service provider to terminate or prevent an infringement in specific cases. On this basis, intellectual property rights holders have pushed to achieve court-ordered monitoring obligations aimed at specific service providers. The Member States' courts did not offer a uniform answer to the question of whether it is permissible for a court to order an internet agent to filter potentially infringing user content. In cases *Atari Europe* and *GEMA v. Rapidshare,* the German Federal Court held that a diligent hosting provider should set up a system of automated filtering of infringing

content after they have received notifications that the use of the hosting services violates the rights of third parties.

The EU Court of Justice (CJEU) did not follow this reasoning. The case *Scarlet Extended* (C-70/10) concerned the question of whether an internet access provider could be ordered to filter all data traffic preventively to prevent illegal transfers of copyrighted content. At the suggestion of the collective organization Sabam, a Belgian court ordered the internet access provider to set up a system that would prevent its customers from transferring music files using peer-to-peer software. The CJEU held that such an order infringed the prohibition of general monitoring obligations and would disproportionately interfere with the freedom of economic initiative of the provider concerned. Traffic filtering would also violate the fundamental rights of users, namely the right to the protection of personal data and the freedom to receive and impart information. If the filter did not distinguish illegal content from legal content well enough, its use would make it impossible to download some legal content, which is unacceptable (Edwards 2009, 81).

The CJEU adopted similar reasoning in the case *SABAM v Netlog* (C-360/10) which concerned the social network Netlog, whose users shared on their profiles copyrighted music and audio-visual works from the catalog of the music collective organization Sabam. The collecting society requested that the operator of the online platform be ordered to prevent such unlawful use of copyrighted works. A Belgian court asked the CJEU whether it was permissible to order a hosting provider to set up a preventive system of filtering all information stored by the users to identify the works managed by Sabam and to prevent the unauthorized sharing of these works. The CJEU reiterated its view that the automatic filtering system would seriously infringe the service provider's freedoms of economic initiative while disproportionately interfering with users' rights to the protection of personal data and the freedom to receive and impart information. Accordingly, it held that the court should not order a hosting provider to establish a preventive system for filtering all user data.

Thus, it is an established position under the E-Commerce Directive that the duty of care cannot be interpreted in a way as to require intermediary service providers to set up an automated (algorithmic) system of filtering of any potentially illegal information uploaded or transmitted by their users. The article 14 requirement of the intermediary's actual knowledge or awareness of the unlawful information does not encompass any knowledge that the intermediary could obtain solely upon monitoring the hosted contents (Rowland, Kohl, Charlesworth 2012, 87). This applies even in cases of social networks and other mass platforms where it can be expected that a considerable share of user-uploaded content will infringe a copyright or other exclusive rights.

MOVE TOWARDS AUTOMATED CONTENT RECOGNITION IN COPYRIGHT LAW

Controversial Adoption of the DSM Directive

In the two decades since the adoption of the E-Commerce Directive, the role and influence of the main online platforms have grown immensely. Unlike vulnerable internet upstarts of the early 2000s, Facebook, Instagram, Twitter or YouTube are now internet giants generating vast advertising revenue at least indirectly derived from making available (unauthorized) copyrighted content uploaded by their users (Krönke 2020, 161). This situation has been met with increasing dissatisfaction by copyright holders as it both disturbed traditional channels for the distribution of copyrighted works as well as stymied the development of new paid online channels. The rightholders have pointed out that the technically neutral role of social networks and other interactive online platforms is questionable since their operators actively encourage users to publish and share their content, which generates high web traffic (Murray 2010, 107; Rowland, Kohl, Charlesworth 2012, 89). Since providing access to user-uploaded content is an essential part of the platform operator's business model, copyright holders increasingly demanded that the operators take a more active role in preventing copyright infringements.

The specific protection of copyright in online platforms was addressed in the DSM Directive, adopted in April 2019 after two years of tumultuous debate in which one of the most contentious issues was whether to mandate the use of automated upload filters to reduce the amount of copyright-infringing content uploaded on social networks. Article 13 of the initial Commissions proposal for a new directive (COM(2016) 593 final) required information society service providers who store and provide to the public access to large amounts of copyrighted content uploaded by their users to take measures to prevent the availability on their services of such content identified by rightholders. As an example of such measures, the Commission's proposal expressly mentioned the use of effective content recognition technologies, stressing that their use must be appropriate and proportionate. The use of content recognition technologies was also referred to in recital 39 of the proposal.

Prescribing the use of content recognition technologies (also referred to as upload filters) seems to go against the prohibition of general monitoring obligations from the E-Commerce Directive, which would lead to a significant overhaul of the EU's online liability rules. Whereas the publishers' and copyright holders' associations were generally supportive of the proposed solution, IT companies (including the internet giants) and many academics were firmly opposed. Critics have pointed out that algorithm-based automatic filtering is technically relatively inefficient. Experience with the use of algorithm-based automatic filtering tools (e.g., on YouTube) has shown that they are not very reliable even in the relatively simple task of recognizing copyrighted

content based on a digital fingerprint, let alone in considering the various limitations and exceptions to copyright. An additional concern is that the costs of operating filtering mechanisms may stifle small independent online platforms and thus increase the existing oligopoly of internet giants, most of them located outside the EU.

Article 17: Shadow Regulation?

After the discussion of several drafts of the contentions provisions in the European Parliament, the EU's legislative process resulted in today's article 17 of the DSM Directive, which tightens the liability rules of a new sub-category of online intermediaries: online content-sharing service (OCSS) providers. These are hosting providers whose main task is to store and give the public access to a large amount of copyrighted content uploaded by its users, which the service provider organizes and promotes for profit-making purposes.

When an OCSS provider gives the public access to copyrighted content uploaded by its users, this qualifies an act of communication to the public or an act of making available to the public by the service provider itself. This means that the service provider must obtain appropriate authorization for such use by the copyright holders, for instance by concluding a licensing agreement. Content-sharing platforms can no longer avoid liability for copyright infringements only by responding to takedown notices but must demonstrate that they have made best efforts to obtain authorization or, failing that, best efforts to ensure the unavailability of the unauthorized copyrighted content. OCSS providers must also make best efforts to prevent any future upload of the infringing content already removed upon receiving a takedown notice (Spindler 2020, 139).

The DSM Directive states that the application of article 17 should not lead to any general monitoring obligation, but due to the enormous amount of users' posts on content-sharing platforms it is hardly conceivable how the removal of all illegal content and the prevention of its future uploads could be achieved otherwise than by using automated filtering tools (Solmecke, Herr 2019; Spindler 2020, 16). Hence, although the Directive's provisions do not expressly mention content recognition technologies, they indirectly mandate their use, which is often referred to as shadow regulation. The conditions for the use of content recognition algorithms should be defined by the guidance provided by the European Commission and through the high industry standards referred to in article 17. Due to the potential conflict with human rights, the courts will certainly play an important role.

The Commission's Guidance

The suspicion that automated algorithmic content recognition will be the preferred, even if not legally mandated manner of complying with the content-sharing platform's best-efforts obligation under the DSM Directive was confirmed by the Commission's Guidance on article 17 (COM(2021) 288 final), issued in June 2021. The document stresses that the best-efforts provision should be implemented in a technologically neutral manner so that OCSS providers are free to choose the solution to comply with their obligations. However, the Commission also points out that the stakeholder dialogue showed that content recognition technology is commonly used today to manage the use of copyrighted content, even if it cannot be considered as the market standard for smaller service providers. The assessment of whether an OCSS provider has made its best efforts concerning specific protected content should be made on a case-by-case basis, according to the proportionality principle, considering the type, size, and audience of the service; the availability of suitable and effective means and the related costs; and the type of content uploaded by users.

The Commission's guidance resembles the CJEU's reasoning in joined cases *YouTube* and *Cyando* (C-682/18 and C-683/18), which was decided based on liability rules from the E-Commerce Directive, but after the adoption of the DSM Directive. The court assessed whether the video hosting platforms have taken 'credible and effective measures to counter copyright infringements after having been notified by the rightholder of specific violations. From the enumeration of various technical measures that might be considered sufficient in this regard, one can conclude that the CJEU does not consider upload filters as the only appropriate technological measure to prevent illegal uploads (Reda, Selinger 2021). The court also stressed that considering the particular importance of the internet to freedom of expression and information, a fair balance must be sought between, on the one hand, the protection of the intellectual property right and, on the other, the right to freedom to conduct a business enjoyed by service providers and the right to freedom of expression and information enjoyed by internet users (paras 65 and 138).

Poland's Action for the Annulment of Article 17

The ECJ is expected to provide further guidance on the acceptability of algorithmic content filtering when deciding on the action for the annulment of article 17 of the Directive lodged by Poland (C-401/19). Poland claims that the imposition of the obligation to make best efforts to ensure the unavailability and future uploads of infringing content require in effect that OCSS providers carry out prior automatic filtering of content uploaded online by users. Such preventive control mechanisms undermine the essence of the right to freedom of expression and information and do

not comply with the requirement that limitations imposed on that right be proportional and necessary. Advocate General Saugmandsgaard Øe concluded in his opinion delivered on 15 July 2021 that OCSS providers are under an obligation to engage in preventative monitoring; however, that obligation is specific, not general. The AG conceded that the contested provisions of the directive might indirectly force OCSS providers to use content recognition tools to filter the user-uploaded content, particularly where its employees would not be able to check all or most of the uploads. This obligation interferes with freedom of expression and information but remains compatible with the Charter of Fundamental Rights. In AG's understanding, OCSS providers are not authorized preventively to block all content that reproduces the copyrighted works but must block only manifestly infringing content. Conversely, in all ambiguous situations where exceptions and limitations to copyright might apply (e.g., short extracts or transformative works) the content concerned cannot be the subject of a preventive blocking measure since this could cause irreparable damage to freedom of expression (Rosati 2021).

Further Conflict of Automated Filtering with Fundamental Rights

In AG Saugmandsgaard Øe's opinion, any filtering algorithms under DSM Directive should be able to protect the fundamental rights exercised through the various limitations and exceptions to copyright prescribed by the Member States in cases where reasons of a public interest override the rightsholders' interests and refrain from blocking such non-infringing content. This seems optimistic considering the current technical level of content-recognition algorithms which are mainly limited to identifying content identical to the provided sample and often fail even at that task (Dawson 2018). It remains to be seen whether the more advanced algorithms will be able to recognize effectively the highly contextual instances where such exceptions and limitations might apply (such as parody, quotation, or incidental inclusion). Romero Moreno proposes that upload filters should be targeted specifically at copyright infringement on a commercial scale, which are more easily recognizable, ensuring the proportionality of the measure (Romero Moreno 2020, 164).

The problem will be further exacerbated if the statutory requirements for automated filtering are eventually expanded to other types of illegal content, such as terrorist materials, hate speech, child pornography, etc., where the recognition of illegal information and the protection of lawful communication might be even more difficult.

Perhaps the rapid development of AI-based software tools will increase the ability of automated contextual recognition of infringing versus non-infringing content. However, AI-based algorithms carry with them the black box problem: their content policies are difficult to understand and, due to their self-learning features, the precise criteria they use to identify, select, or classify information are constantly evolving and

may not be well understood even by the operators themselves (Wischmeyer 2020, 77). This makes it difficult any effective *ex post* judicial control over content filtering, whereas *ex ante* procedural hurdle to censorship is completely removed by automation (Llansó 2020, 3-4).

Even if the content filtering algorithms perform perfectly, however, the setting up of technical infrastructure for permanent monitoring of all internet content is dangerous. Free internet is an essential information infrastructure of modern society. The practice of scanning all online content for any possible illegalities is eerily similar to the manners of totalitarian states and the suspicion will linger that filtering algorithms could be misused for political or for commercial purposes. Hence the warning of the internet pioneers that the DSM directive takes an unprecedented step towards the transformation of the internet from an open platform for sharing and innovation into a tool for the automated surveillance and control of its users (Cerf *et al.* 2018).

CONCLUSION

The use of content recognition and other content sorting algorithms online is a reality that will not go away, regardless of the law. Evermore complex algorithms will be used to sort out the ever-increasing amounts of information. This is increasingly recognized by the CJEU's case law and in the EU's legislation, although both remain based on the principle of prohibition of general monitoring obligations. To protect the exercise of fundamental rights online, the operation of the algorithms will have to be regulated, and copyright law is just the first field where such attempts have been made in legislation. However, the regulation of filtering algorithms should not simply amount to delegating the task of censoring the internet to private service providers who are then free to determine themselves what information they will block (Institut Suisse 2017, 17-22). The intermediaries' neutral role in handling users' data is essential to preserve the internet's role as a public information infrastructure rather than just an offering of commercial electronic services completely within their provider's ambit and responsibility. To ensure democratic control of the internet, the operation of algorithms should be transparent, including transparency into what elements of the underlying data were important in developing the classifier of an algorithm (Llansó 2020, 5). The draft Artificial Intelligence Act contains transparency obligations for certain AI systems, but these would not apply to the content-filtering algorithms discussed here as they do not directly interact with humans, use biometric data or generate or manipulate content. Rather than using shadow regulation, the copyright legislation should expressly regulate the filtering algorithms used on content-sharing platforms and require their transparency. This would also allow the courts to preserve their role of assessing whether the measures strike a balance between the fundamental rights.

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REFERENCES

1. Cerf, Vint, *et al*. 2018 "Article 13 of the EU Copyright Directive Threatens the Internet, letter to the President of the European Parliament", *Electronic Frontier Foundation,* 12 June. https://www.eff.org/files/2018/06/12/article13letter.pdf
2. Dawson, Aimee. 2018."Facebook censors 30,000-year-old Venus of Willendorf as 'pornographic'." *The Art Newspaper,* 27. February. https://www.theartnewspaper.com/news/facebook-censors-famous-30-000-year-old-nude-statue-as-pornographic
3. Edwards, Lilian. 2009. "The Fall and Rise of Intermediary Liability Online." In *Law and the Internet*, edited by Lilian Edwards and Charlotte Waelde, Oxford: Hart Publishing.
4. Institut suisse de droit compare. 2017.*Comparative Study on Blocking, Filtering, and Takedown of Illegal Internet Content.* Lausanne: Council of Europe.
5. Llansó, Emma J. 2020. "No Amount of 'AI' in Content Moderation Will Solve Filtering's Prior-Restraint Problem." *Big Data & Society*, 7:1-6.
6. Murray, Andrew. 2010.*Information Technology Law: The law and society.* Oxford: Oxford University Press.
7. Reda, Julia, and Joschka Selinger. 2021. "YouTube/Cyando – an Important Ruling for Platform Liability – Part 1." *Kluwer Copyright Blog*, 1 July, http://copyrightblog.kluweriplaw.com/2021/07/01/youtube-cyando-an-important-ruling-for-platform-liability-part-1.
8. Romero Moreno, Felipe. 2020 "Upload filters and human rights: implementing Article 17 of the Directive on Copyright in the Digital Single Market." *International Review of Law, Computers & Technology*, 34:2, 153-182.
9. Rosati, Eleonora. 2021. "AG Øe advises CJEU to rule that Article 17 is COMPATIBLE with the EU Charter of Fundamental Rights and should not be annulled Thursday." *TheIPKat*, 15 July. https://ipkitten.blogspot.com/2021/07/ag-e-advises-cjeu-to-rule-that-article.html.
10. Rowland, Diane, Uta Kohl, and Andrew Charlesworth. 2012. *Information technology law*. 4th edition. London, New York: Routledge.
11. Solmecke, Christian, and Anne-Christine Herr. 2019. "Rechtliche Analyse der Pro- und Contra Argumente zu Artikel 13 der geplanten EU Urheberrechtsnovelle." Wilde Beuger Solmecke Rechtsanwälte, 19 March. https://www.wbs-law.de/wp-content/uploads/2019/03/Analyse-Artikel-13-Version-1.2-WILDE-BEUGER-SOLMECKE-Rechtsanw%C3%A4lte.pdf.
12. Spindler, Gerald. 2020."Copyright Law and Internet Intermediaries Liability." In *EU Internet Law in the Digital Era: Regulation and Enforcement,* edited by Tatiana-Eleni Synodinou *et al*.Cham: Springer Nature.

13. Wischmeyer, Thomas and Timo Rademacher. 2020. "Preface: Good Artificial Intelligence." In *Regulating Artificial Intelligence*, edited by Thomas Wischmeyer and Timo Rademacher. Cham: Springer.
14. Wischmeyer, Thomas. 2020. "Artificial Intelligence and Transparency: Opening the Black Box." In *Regulating Artificial Intelligence*, edited by Thomas Wischmeyer and Timo Rademacher. Cham: Springer.
15. Krönke, Christoph. 2020. "Artificial Intelligence and Social Media." In *Regulating Artificial Intelligence*, edited by Thomas Wischmeyer and Timo Rademacher. Cham: Springer.

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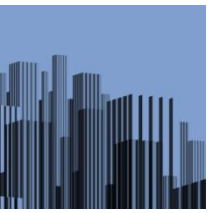

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DEVELOPMENT OF NEW TECHNOLOGIES AND CHALLENGES OF THE SOCIETIES IN TRANSITION: THE CASE OF KOSOVO

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Abstract: *The development of new technologies is considered a revolution because it has interconnected micro and macro cultures, has influenced socio-economic developments, and is gradually transferring our social life to the virtual one. Today, life without information technology is unimaginable and every communication is done through new technologies. On the other hand, the privacy and misuse of personal data are directly endangering personal freedom. The Balkan countries are as well part of this technological development but are also heavily challenged by different unidentified risks. Kosovo has a young population and is considered to have the youngest population in Europe. About 96.4% of households have access to the internet. This paper aims to analyze the development of new technologies in societies in transition, especially in Kosovo, the challenges, the issue of privacy, and the future of information technology. The methodology applied within this paper is the study of literature and the development of qualitative research. The findings demonstrate that Kosovo has quickly embraced information technology, digitized its public services, and installed some of the region's most cutting-edge technologies, such as 3D printers, but it is also highly vulnerable to cyber-attacks.*

Keywords: *New Technologies; Challenges; Societies; Transition; Kosovo*

INTRODUCTION

The advancement of science, technology, and informatics has recently signaled that the modern world will appear different, with a focus on new technology, particularly digitalization. The emergence of the Covid-19 pandemic has also highlighted the need to have digitized services. As an impact of this pandemic, states have designed public policies, which make it possible for their citizens to work, leering, do fitness from home,

and many other things that have not been done before nor imagined. As Deborah Lupton (2015) stated "we now live in a digital society. New digital technologies have had a profound influence on everyday life, social relations, government, commerce, the economy, and the production and dissemination of knowledge. People's movements in space, their purchasing habits, and their online communication with others are now monitored in detail by digital technologies. We are increasingly becoming digital data subjects, whether we like it or not, and whether we choose this or not" (Lupton 2015). As a result, new technologies have become a part of our social settings, and in some ways, they are also making us addicted, without which life in the XXI century cannot be envisioned. It should be noted that:

> communication technologies, accompanied by the vehement wind of change that tosses our life about in the present period, promise humanity a 'new civilization', an 'information revolution', or an 'information society'. First of all, the progress in the field of communication technologies allows for worldwide access to information with its full diversity, paving the way for the rise of a new network of social relations among individuals and thus leading to the formation of a new domain of social values. In the opinion of the utopists of the digital age, communication technologies will at the same time create chances for more productive and developed employment (Akgül 2017).

This implies that in the era of digitalization and post-digitalization, society will be focused on all its capacities in this matter and that the human world will gradually be transferred to the virtual one. Probably, Johan Günther (2008) is right, who points out that: "today two different internet users live next to each other: a) digital natives and b) digital immigrants", where the first are those people who have grown up with the internet and it for them is a tool, an instrument that is no longer suspected. The latter, on the other hand, are older people in whose lives the internet has now entered.

By analyzing the trends of development of new technologies, especially the use of the internet and social networks, data for July 2021 globally indicate that there are 7.87 billion people (56.6% which lives in urban zones), 5.27 billion smartphone users or 66.9%, 4.80 billion internet users, or 60.9% of the global population and 4.48 billion active social media users or 56.8% of the global population" (Datare Portal 2021). So we can realize that the world is moving at a very fast speed towards digitalization and advancement with new technologies in all spheres. Undoubtedly, in this segment, there are new challenges that will be presented with the development and advancement of technologies, which will be a challenge for societies, democracy itself, interpersonal relations, politics, economy, and other segments of life. New technology developments have considerably permeated the Western Balkan countries, particularly in Kosovo, where the use of the internet and new apps is increasing.

According to the Kosovo Agency of Statistics (2020), "the percentage of households that had access to the internet from their home in 2020 was 96.4% and dominates the age group 35-44, where 19.5% have had internet access at home, from different devices. While, in terms of gender, men use the internet at a higher rate (57.4%) compared to women (40.2%)". This increase in the use of information technology has also affected the increase in the use of various technological platforms, impacted the employment of society, but also the willingness to face new challenges as a society in transition.

This paper aims to analyze the impact of the development of new technologies in Kosovo society, as a society in transition. Also the use of the internet, the relationship between human rights and social privacy, as well as future orientations towards the development of new technologies, amid the need for change and adaptation to the digitalized world, as well as the challenges that new technologies can bring. In the framework of this paper, the following methods have been used: literature study method, legal method, comparison method, and development of qualitative research with in-depth semi-structured interviews. Two interviews have been planned with IT experts/software developers and sociologists/mass communication experts and the same number of interviews were conducted. The interviews, in addition to biographical data, contained over 8 questions, which were open-ended questions and filter questions. The questions were analyzed and cited during this paper, depending on the need and adaptation to other relevant data presented here.

Some of the research questions we have presented in this article are: What is the role of the new developments in information technologies in the enlargement of contemporary society? Can society contests new developments? How much can new technological developments affect inter-social relations, especially privacy? What will be the role of the state in national security? How new technologies have been accepted in societies in transition like Kosovo and how resilient are citizens to new changes?

HUMAN RIGHTS AND SOCIAL PRIVACY

The issue of human rights concerning the development of information technologies, especially the violation of the integrity of the privacy of the individual has become part of the global discussions around the world. The characteristics of modern society are the dynamics of life, the savage capitalism which alienated man, the process of globalization, the lack of time, the fading of inter-social relations, as well as the need to obtain information as soon as possible. It is even assumed that today information is power because he who has information can also have the power. Studies show that

> this technological revolution formed the material foundation for a new type of society. An entire generation has now come of age in the network society, the information age, or to use a term more recently popularised in

> the social sciences, the digital society. This is a society characterized by information flowing through global networks at unprecedented speeds. New undergraduate and postgraduate courses are appearing that specialize in understanding 'digital society', 'digital culture', or 'digital media and society' (Redshaw 2020).

This achievement has made modern man reach the highest pedestals of society, but at the same time also violate the privacy of the individual and that man who in the Middle Ages fought hard for this freedom he enjoys today, to become its robot or what Erich Fromm defines it as 'automaton conformity'.

The digital age is increasingly alienating society and today we are witnessing what social media, sometimes are becoming an even necessary tool for society. Moreover, the questions that arise today globally are how much is new technology restricting the freedom of the individual, and how much do we have social privacy? Because each information technology tool demands data from the user, it can potentially be abused. Actually,

> privacy, as a fundamental human right, has been protected under multinational privacy guidelines, directives, and frameworks in different countries or conventions at the international level, such as the United Nations Universal Declaration of Human Rights of 1948 (article 12), International Covenant on the Civil and Political Rights (article 17) and The European Convention of Human Rights of 1950 (article 8) since the 1950s (Dorraji and Mantas 2014).

Studies underline that "technological progress has created a situation of severe tension and incompatibility between the right to privacy and the extensive data pooling on which the digital economy is based. This development requires new thinking about the substance of that right" (Altshuler 2019). It's important to say that "satellites monitoring, growing automated surveillance and personal smartphones may track every movement of the individual. Radio Frequency Identification (RFID) systems and online purchases are revolutionizing personal information usage and have consequently started to re-shape our understandings of privacy and our requirements of privacy laws" (Dorraji and Mantas 2014, 309). Such monitoring often doubts about how much privacy we have, although we as a society often post our data or store them in applications, including our credit card details, family photos, various posts, etc., which can often be misused or even exploited by hackers for different purposes.

In Kosovo, the Constitution and the Law on Personal Data Protection guarantee the right to protection of personal data and privacy. This right is guaranteed by article 36 of the Constitution of the Republic of Kosovo, which includes:

> respect for private and family life, inviolability of the home, confidentiality of correspondence, telephone, and other communications, and protection of personal data. Also, the direct implementation of international agreements and instruments which guarantee human rights and freedoms defined by article 22 of the Constitution of the Republic of Kosovo, such as 1) Universal Declaration of Human Rights; and 2) European Convention for the Protection of Human Rights and Fundamental Freedoms and its Protocols (Rregullatori.com 2018).

Therefore the Law No. 06/L-082 on Protection of Personal Data states that:

> 1. This law determines the rights, responsibilities, principles, and punitive measures for the protection of personal data and the privacy of individuals. This Law determines the responsibilities of the institution responsible for monitoring the legitimacy of data processing and access to public documents. 2. This Law complies with the Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons about the processing of personal data and the free movement of such data and repealing Directive 95/46/EC (General Data Protection Regulation) (Law No. 06/L-082 on Protection of Personal Data 2019).

This legal basis is in line with the directives of the European Union, but also through strategic documents Kosovo has established policies of personal data protection, protection from cyber-attacks, and protection from any violation of national security. On the other hand, there are often cases not only in Kosovo but also in countries that have much higher cyber security than Kosovo, to have cyber-attacks, to steal virtual identities, to create false profiles, especially in the name of public figures for material benefits or causing general damages. Just to recall the case of WikiLeaks or the Panama Papers, this caused chaos, social insecurity, and psychological confusion everywhere in the world. On one side appear the secret affairs of various states and organized crime by the ruling elites. On the other hand, they gave signals that however everything is monitored by a 'Big Brother'. This showed how far the limit of social privacy can be about information technology. Studies pointed out that they are mostly,

> three relatively recent major digital developments that have affected our concept of privacy greatly. The first of which is the increase in data creation and the resulting collection of vast amounts of personal data—caused by the electronic recording of almost every transaction; secondly, the globalization of the data market and the ability of anyone to collate and examine this data; and lastly the lack of control mechanisms for digital data which existed to protect analog data (Rengel 2014).

The digital age we have entered now will have two sides of the coin: on the one hand, it will have a positive impact on the overall development of society, politics, economics, artificial intelligence, bio-engineering, and other segments. On the other hand, the crossing of the borders through the virtual world, which author Yuval Noah Harari called 'digital dictatorships', can be systems of surveillance and social control. According to him, "in the hands of a non-evil government, powerful surveillance algorithms may be the best thing that has ever happened to humanity. However, the same Big Data algorithms can empower a future Big Brother, and thus we will end up in an Orwellian surveillance regime in which all individuals are monitored all of the time" (Harari 2018).

NEW TECHNOLOGIES AND CHALLENGES OF MODERN SOCIETY

An old proverb says that "within nothingness, there is an infinite potential" (Masuno 2021), although this sounds meaningless, ideally describes the development of modern societies. Simplification to 'the nothing' and digitalization in the minimalist style has reduced the size of the equipment, but on the other hand has expanded and increased the potential of every product, service, or device. Some of the services that were once unimaginable, today are free of charge, some of the services that are now free have turned into lucrative businesses for many individuals, e.g. "sports events are becoming more and more popular, as a result, and the prize polls are getting bigger and bigger. Some of the best sports players in the world are starting to earn wages similar to that of traditional sports stars" (Boggs 2021). Also, the same thing "happens in industry after industry. In recent years, newspapers, grocery stores, and music, movies and TV have been disrupted. It's not that the leaders of incumbent industries don't have sharp strategies and plans. The problem is that they extrapolate their current model into the future instead of envisioning the possibilities" (Johnson and Suskewicz 2018).

The development of technology has influenced the development of modern society but has also produced consequences that have effects, which are now beginning to appear. It should be said that "technology is here to stay, but it's always morphing and expanding. As each new technology enters the scene, it has the potential to improve lives. But, in some cases, it also has the potential to negatively affect physical and emotional health" (Pietrangelo 2019). According to the American Optometric Association (AOA) (2020), "prolonged use of computers, tablets, and cell phones can lead to digital eye strain". This is just one of the problems that have occurred. Other problems are related to sleep, emotions, increased depression, stress, violent behavior, post-traumatic stress disorder by Covid-19, lack of physical activity, and the creation of an internet and technology-dependent generation which has information surplus and knowledge deficit, can undoubtedly be problems of the new millennium. Technology penetrates the interior of the state and directs its most vital components in the same

way as it limits, weakens, or conditions modern man. For example, domestic state policy in modern societies depends on its technological development whether due to cyber security or military technology. Health public policy is also dependent on the development of new technologies, in some countries during the Covid-19 pandemic, thanks to 3D technology, have been produced ancillary materials at low cost for health personnel and citizens of that state. Of course, through technology, some countries have managed to create *ad hoc* hospitals depending on the need to deal with the pandemic. In other areas such as foreign policy, economy, education, etc., technological development helped some countries even after total closure to not experience it as a setback or a waste of time, because they replaced physical spaces with virtual spaces, such as online meetings, online shopping, online learning, etc. While in less developed countries, the pandemic has eclipsed them in almost every segment of life.

While we mentioned some of the negative effects of new technologies and modern societies, we must keep in mind that new technologies have provided equal opportunities. In most countries and countries, while in less developed countries, the pandemic eclipses say in almost every segment of life, a common economic, cultural, artistic, and sports market has been created. As Netflix author and founder Reed Hastings (2020) explains, one of the reasons for Netflix's success is "the rule of no rules, that is, to provide service to all in an uncensored and uncontrolled manner". In this regard, "according to a recent poll involving some 1,150 experts, 47% of respondents predict that individuals' well-being will be more helped than harmed by digital life in the next decade, while 32% say people's well-being will be more harmed than helped. Only 21% of those surveyed indicated that the impact of technologies on people's well-being will be negligible compared to now" (Anderson and Rainie 2018). In other words, new technologies have also blurred and increased societal differences in access to information and the use of the same communication networks or merging into the same idea across the state borders.

SOCIETIES IN TRANSITION, NEW TECHNOLOGIES AND THE FUTURE ORIENTATIONS

The period of transition is "considered as a transitional period in which transformations take place from one system to a new system, including the aspect of politics, economy, culture and other social aspects of the state" (Kamberi 2019). However, what happens when we are dealing with a transition that is more of a technological transition, which brings the world, regions, states, multinational corporations, and individuals themselves in the face of the dilemma of a new technological order. The Balkan Peninsula best illustrates the mixing of different ethnicities, cultures, and religions in a common geographical area. The Balkan countries have coexisted by sharing the challenges, which in addition to political problems have

also come as a result of new global trends. In this regard, Kosovo as a country that has gone through several stages of transition faces like any other country the process of globalization and new technologies, especially with the new challenges from this hyper-development of new technologies, which every day more and more are reaching the top of development. Thus, Kosovo is a lower-middle-income country with solid economic growth performance since the end of the war. However, according to the data, "the Gross Domestic Product (GDP) in Kosovo was worth 7.61 billion US dollars in 2020, according to official data from the World Bank. The GDP value of Kosovo represents 0.01% of the world economy" (Economics 2021). Although, Kosovo`s diasporas are quite strong and almost a large percentage of the budget in Kosovo as revenues are also remittances. The population structure in Kosovo is mostly young, Kosovo perhaps "has the youngest population in Europe with 53% under 25 years of age" (European Union 2018), who are by and large internet users and connoisseurs of foreign languages. Although a relatively new and inexperienced country in terms of legal infrastructure for new technologies, it is a place where new technologies have found active users. In 2013 the government of Kosovo officially declared the IT industry as a top priority sector for its economy. IT industry "is of strategic importance for the economic and social development of Kosovo for several reasons, such as economic growth, job creation, export promotion, competition, innovation and entrepreneurship, branding and positioning, investment promotion and other strategic benefits" (MED 2018).

The technology sector in Kosovo is thriving despite many roadblocks. The low cost of building digital products and services has enabled Kosovars to rapidly grow the sector, spurring job generation, improving the export market, and increasing incomes. Rapid growth has also been enabled by the following: "70% of the population is under 35 years of age and interested in new and innovative employment opportunities, such as the digital sector. There is more than 85% internet penetration and 90% 3G and 4G coverage across the country. Internet penetration in Kosovo stood at 91.0% in January 2021" (Dweck 2020). Data shows that "there were 1.76 million internet users in Kosovo in January 2021. The number of internet users in Kosovo increased by 156 thousand (+9.7%) between 2020 and 2021. Also, there were 1.10 million social media users in Kosovo in January 2021" (Kemp 2021).

Also, the World Bank has published the Doing Business report for 2020, which includes 190 economies worldwide. The Report assesses the implementation of almost 300 reforms in the period from May 2018 to May 2019. Kosovo in this Report is ranked 57th" (Ekonomia-ks 2020). The Kosovo government has stated that digital is one of six priority sectors for economic development. Kosovo's most daunting economic challenge, however, is its unemployment rate of 45%, the highest in the SEE region (OECD 2013). This is exacerbated by nearly 25-35,000 young individuals entering the labor market each year with only a small portion of graduates finding employment;

resulting in youth unemployment estimated to be the highest in Europe at near 73% (OECD 2013, 12). The threats to the innovation system are three-fold:

> first, is that the best and brightest leave Kosovo altogether; second, that the skills of previous graduates become obsolete as a result of not being used; and, third, the education system is not producing graduates with the skills needed by the private sector. The latter point, in particular, can be seen in selected sectors, such as in information and communication technology (ICT), where skills gaps are present (OECD 2013).

On the other hand, Kosovo has been paradoxically challenged in two forms of new technologies, firstly, the extremely large participation of Kosovo society in the production and sale of crypto-currencies, and secondly, the lack of 3D equipment which has been used by many developed countries to counter the COVID-19 pandemic. Although "the best-known cryptocurrency, Bitcoin, has dropped far below the prices it hit in a speculative bubble in December, it can still provide a living in a country that has the highest internet penetration in the Balkans and the cheapest electricity" (Bytyci and Zuvela 2018). Thus, "Kosovars find cryptocurrencies an alluring investment", said Ermal Sadiku, a software engineer and cryptocurrency expert. Secondly, "there was a lot of dirty money around - and cryptocurrency investment was a fast way to get rid of it" (Bytyci and Zuvela 2018). Nevertheless, the barriers to entry are not negligible. Bitcoin is earned or 'mined' by "using your computer to help process the uncrackable 'blockchains' or digital transaction records that underpin the currency" (Bytyci and Zuvela 2018). New technologies have been easily accepted by the Kosovo society, probably also due to the mainly young population. Regarding this during the interviews with experts of the field, Mr. A. Shala (2021), a sociologist and communication expert, stated that:

> New technologies in societies in transition, such as Kosovo, have been accepted blankly, without any study or any proper educational plan, there is a disparity between the national plan and the use of technology in different strata of society. In this sense we also have the political transition, technology has found societies unconsolidated and the consequences may be bigger than the benefits.

While, in terms of socio-economic development, it seems that new technologies have found a pretty good terrain, because it has shortened bureaucratic procedures and has had an effective and efficient cost, at least so think the experts who were interviewed specifically for that matter. The IT expert D. Hadri (2021) believes that the "needs are enormous, especially in the digitalization of administrations, and the reduction of state bureaucracies, which the development of technology can greatly

help". Data from the Kosovo Agency of Statistics for 2020 underline that in recent years there has been an increase in sales and purchases through the virtual form, as follows:

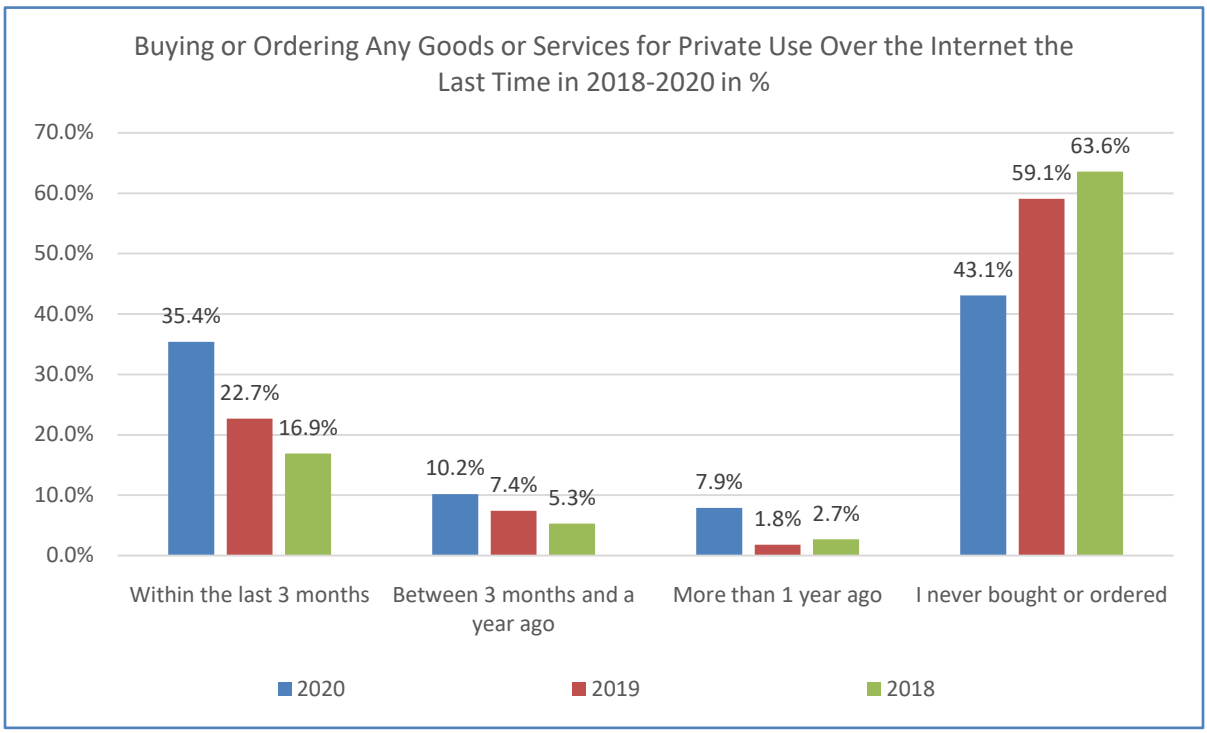

Figure 1: Buying or Ordering Any Goods and Services over the Internet the Last Time in 2018-2020 (Source: KAS 2020, 14)

Figure 1 indicates that in 2020 the purchase or order of goods and services online by individuals 3 months before the interview is 35.4%. Compared to 2019 the purchase or order of goods through the internet increased by 12.7%, while the number of individuals who never bought or ordered goods and services over the internet is 43.1%. However, regarding the countries from which the purchase has been made, the data states as follow:

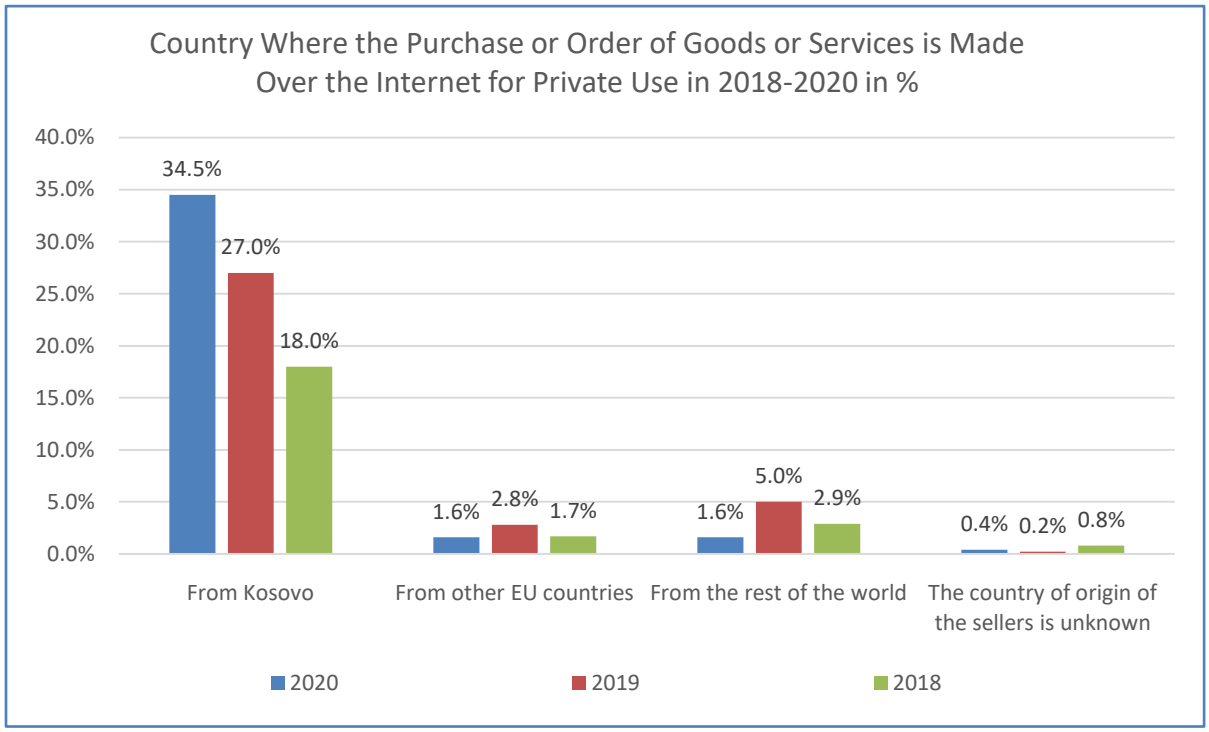

Figure 2: Buying or Ordering Any Goods and Services for Private Use Over the Internet in the Last 12 Months (Source: KAS 2020, 15)

Figure 2 indicates that in 2020 the purchase or order of goods and services over the internet for private use in the last 12 months in Kosovo is 34.5%. Compared to 2019, the purchase or order of goods and services for private use has increased by 7.5%.

In terms of the need for new technology and dealing with the crisis caused by the Covid-19 pandemic, Kosovo was unable to manage the situation using new technologies and instead continued to deal with it using traditional methods, such as purchasing more expensive medical supplies or other equipment. In developed countries, such medical materials are typically created using 3D printers.

The Covid-19 pandemic's occurrence,

> alerted the world to how sudden product demand can challenge the supply chain to an extent where even first-world countries faced serious difficulties in addressing the basic hygienic needs of people. With the outbreak of the novel Covid-19 in late 2019, most countries have been facing serious difficulties with the supply of protective devices among the general public and healthcare workers. Furthermore, for controlling the spread of Covid-19, the protection is not only limited to the healthcare workers but is also essential for any person working in public, especially those who directly deal with and provide in-person services. Given the shortage and importance of protective equipment, designers from all over

> the world have proposed different 3D-printed devices to help prevent the spread of this virus and address global needs (Petch 2020).

Although the role of 3D printers has been proven in the field of medicine, the dilemma that prevails with this technology is that in addition to the benefits, comes the risk of using this technology, for example in the field of security and military technology. Countries like Kosovo, which is considered a 'society in transition', are in a constant challenge in terms of new technologies, given the lack of legal infrastructure, unsustainable economic growth, and political problems which leave no room for governments to focus on innovation and technology. This will be difficult for other Balkan countries as well since

> the future of new technologies will begin to stabilize and the social need for a post-technological period will emerge rapidly, as every good has its dose of risk and social saturation will be challenged by the need for prudence in use and return of social emotionality who will suffer from the tremendous use of technology. The fact that technology has attacked the psychological side of humanity represents satiety and at the same time, emotional fading over time will result in a need to heal the post-technological stress (Shala 2021).

As a result, while globalization and the internet have developed bridges across diverse civilizations, emerging technologies are likely to be challenging for humanity's future.

CONCLUSION

Today, it is possible to assume that the future of humanity is dependent on new technologies. While technology has provided social, material, and cultural benefits, they have also helped to build bridges between different communities and social groups. On the other hand, these developments have intruded into modern people's private lives, exploiting their data for illegal profit.

Kosovo has a young population structure and is considered the youngest population in Europe. As such has adopted new technological developments, including crypto-currencies and 3D printer technology, which very likely are in line with the developed countries. These technologies have advanced and have had an impact on the advancement and development of human resources, the economy, but they have also increased the number of users of the technology, with over 96% of households now having access to the internet and information technologies. The issues that Kosovo, as well as other countries in the area and beyond, face include undoubtedly the misuse of personal data, cyber-attacks, and the issue of privacy, which has put the modern man in

a tremendous Hamlet's dilemma of using information technologies even if it means rejecting them. As a result, the difficulties of the XXI century will be primarily information technology, which will be misused and will confront the human freedom for which he has battled from its inception, not only in Kosovo but also elsewhere.

It is assumed that continued development and ultimate misuse of artificial intelligence might eliminate people's economic worth and political power, and in this segment, the misuse and difficulties of humanity via biotechnology could shift humanity from economic inequality to biological inequality. 

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REFERENCES

1. Akgül, M. 2017. "Digitalization and Religion." Digitalization and Society (PL Academic Research is an Imprint of Peter Lang GmbH) 11. Accessed August 20, 2021. Retrieved from: https://library.oapen.org/bitstream/id/711234ff-e1dd-47f2-9a19-6fea5dc8407c/external_content.pdf
2. Altshuler, T. Shwartz. 2019. "Privacy in Digital World." August 31, 2021. Retrieved from: https://techcrunch.com/2019/09/26/privacy-queen-of-human-rights-in-a-digital-world/
3. Anderson, J & Rainie, L. (2018). "The Future of Well-Being in a Tech-Saturated World." Pew Research Center. Accessed September 03, 2021. Retrieved from: https://www.pewresearch.org/internet/2018/04/17/the-future-of-well-being-in-a-tech-saturated-world/
4. AOA. 2020. "Computer vision syndrome." https://www.aoa.org. Vers. Computer vision syndrome. Accessed September 03, 2021. Retrieved from: https://www.aoa.org/healthy-eyes/eye-and-vision-conditions/computer-vision-syndrome?sso=y
5. Boggs, A. (2021). "Top 10 highest-earning sports players in the world." Accessed September 05, 2021. Retrieved from: https://www.esportsbets.com/news/highest-earning-esports-players/
6. Bytyci, Fatos & Zuvela, Maja. (2018). "With jobs short but power cheap, Kosovars get mining – cryptocurrency." Accessed September 04, 202. Retrieved from: https://www.reuters.com/article/us-crypto-currencies-kosovo-idUSKBN1JB1UH
7. Digital Datare Portal (2021). "Digital around the world." Digital Datare Portal. Accessed August 30, 2021. Retrieved from: https://datareportal.com/global-digital-overview
8. Dorraji, Seyed Ebrahim & Barcys, Mantas. (2014). Privacy in Digital Age: Dead or Alive?! Regarding the New EU Data Protection Regulations. *Social Technologies*, 4 (2), 306-317.Accessed August 30, 2021. doi:10.13165/ST-14-4-2-05.
9. Dweck, T. (2020). "Digital Development in the Western Balkans: Kosovo." Prishtina: DAI. Accessed August 30, 2021. Retrieved from: https://dai-global-digital.com/digital-development-in-the-western-balkans-kosovo.html
10. Economics, Trading. (2021). "Kosovo GDP." Accessed September 04, 2021. Retrieved from: https://tradingeconomics.com/kosovo/gdp
11. Ekonomia-ks. (2020). "Kosova, e 57-a në raportin e "Të bërit biznes" të Bankës Botërore." Accessed September 06, 2021. Retrieved, from: http://www.ekonomia-ks.com/sq/ekonomi/kosova-e-57-a-ne-raportin-e-te-berit-biznes-te-bankes-boterore
12. European Union. (2018). EU Assistance to Kosovo Education for the Future. Prishtina: European Commission Liaison Office to Kosovo.

13. Günther, J. (2008). Vendasit Digjitalë & imigrantët digjitalë. Prishtinë: Konet.
14. Hadri, D. (September 05, 2021). Ekspert i fushës së TI-së/zhvillues i programeve. (Kamberi, F, & Abazi, A. Interviewer) Prishtinë.
15. Hastings, R. & Meyer, Erin. (2020). No Rules Rules, Netflix, and the culture of Reinvention. New York: Penguin Press.
16. Johnson, W. Mark & Suskewicz, Josh. (2018). Lead from the Future. Harvard Business Review Press.
17. Kamberi, F. (2019). Dilemat e Tranzicionit. Prishtinë: Artini.
18. KAS. (2020). "Survey on Use of Information and Communication Technology 2020." Prishtina: KAS.
19. Kemp. S. (2021). "Digital 2021: Kosovo." Digital Datare Portal. Accessed August 30, 2021. Retrieved from:https://datareportal.com/reports/digital-2021-kosovo?rq=kosovo#
20. Law No. 06/L-082 on Protection of Personal Data. (2019). Accessed August 31, 2021, Retrieved from: https://gzk.rks-gov.net/ActDetail.aspx?ActID=18616
21. Lupton, Deborah. (2015). Digital Sociology. London & New York: Routledge.
22. Masuno, Shunmyo. (2021). ZEN - Arti i të jetuarit në thjeshtësi. Tiranë: Pulished on - Pema.
23. MED. (2018). "Strategjia e Kosovës për TI." Strategic Document, Prishtinë: MED& GIZ &Norwegian Embassy.
24. OECD. (2013). "Private Sector Development - Assessment of Kosovo Innovation System." Documents. OECD, 12.
25. Petch, Michael. (2020). "3D Printing Community Responds to COVID-19 and Coronavirus Resources." Accessed September 06, 2021. Retrieved from: https://3dprintingindustry.com/news/3d-printing-community-responds-to-covid-19-and-coronavirus-resources-169143/
26. Pietrangelo, Ann. (2019). "How Does Technology Affect Your Health? The Good, the Bad, and Tips for Use." Accessed September 04, 2021. Retrieved from: https://www.healthline.com/health/negative-effects-of-technology
27. Redshaw, Tom. (2020). "What is digital society? Reflections on the aims and purpose of digital sociology." Sociology (Sage) Vol 54 (2): 425-431. Accessed September 02, 2021. doi: https://doi.org/10.1177%2F0038038519880114
28. Rengel, Alexandra. (2014). "Privacy as an International Human Right and the Right to Obscurity in Cyberspace." Groningen Journal of International Law (Privacy in International Law) vol 2 (2): 43.
29. Rregullatori.com. (2018). "Mbrotja e të dhënave personale." Accessed August 31. Retrieved from: https://rregullatori.com/agjencia-shteterore-per-mbrojtjen-e-te-dhenave-personale/

30. Shala, A. (September 06, 2021). Sociolog/ekspertë i komunikimit, Prishtinë, (Kamberi, F, & Abazi, A. Interviewer) Prishtinë.
31. Yuval Noah Harari. (2018). 21 Leksione për Shekullin e 21. Tiranë: Botart.

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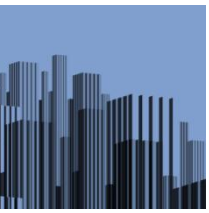

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EVALUATION OF DIGITAL MARKETING PERFORMANCE IN ELECTRONIC GOODS INDUSTRY: AN EMPIRICAL STUDY

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Abstract: *The last two decades have witnessed a skyrocketing growth in digital marketing that made customers interested in purchasing products particularly electronic goods. However, it is not known whether those customers attained satisfaction through this purchase. To confirm the fact, this research has attempted to analyze the retention rate of digital marketing customers who have experience in purchasing electronic goods and for this purpose, 603 consumers of Tamilnadu (India) who have the purchase experience on a digital marketing basis were selected on a simple random basis. Tools like structural equation modeling, percentage analysis, one-way ANOVA, and paired sample 't' test were applied and the result revealed that only customer satisfaction has mediated the influence of digital marketing on their loyalty but, the important parameter, trust has a negative role between these constructs. Marketers need to create trust about the product with the actual features as informed in digital marketing so that consumers can reach a high level of satisfaction and this may lead to a positive word of mouth. In addition, this enhances sales and enables marketers to attain profit maximization along with building consumer confidence.*

Keywords: *Customer Loyalty; Digital Marketing; E-Commerce; Market; Technology; Trust*

INTRODUCTION

In today's context, every organization is trying to retain its position in the market due to competition and this competition and change are due to the growth of digital marketing organizations following this technique for their cost efficiency and global reach. Merisavo (2006) pointed out that digital channels are often creating new prospects and ensuring good customer relationships and hence it becomes an essential part of the organization's strategy.

Also, digital marketing technology is a new tendency that reaches the worldwide customers efficiently and facilitates them to get the required and updated information in a simplified manner and also provide with economic pricing conveniently. This becomes a part of customers' everyday schedules (Ganesh and Chakraborty 2021) especially among the younger generation (Balakrishnan, Dahnil, and Yi 2014).

But for any success crucial for the business, customer loyalty is essential and this loyalty could be achieved only through effective quality in services offered by the concerned organization. Only when both perceive service quality and the satisfaction is found high, it creates the purchase intention among the customers and this is not only for the electronic goods but for all the products. Especially, it is trust that plays a crucial role in the purchasing decision among the customers who were influenced by digital marketing.

This study primarily focused on the effects of digital marketing (DM) on customer loyalty among individuals who purchased electronic items in Tamilnadu. The reason behind this is normally, a customer who preferred purchasing electronic goods would not rely on the entire information communicated through the social media advertisement rather be satisfied only based on their physical verification either in the premises of the retailer or in their place if it is online purchase due to product's sensitivity nature. But this digital marketing enables those sensitive customers to purchase electronic goods even through online shopping because of the trust created by that communication. But there is no evidence to identify the level of loyalty they had with the organization after the initial digital marketing-based purchase.

Various constructs like website design, product quality, and Security, Trust, and customer satisfaction were considered to analyze the customer loyalty level along with the following research questions:

1. How does digital marketing significantly impact customer purchase behavior?
2. Do the online marketing strategies yield positive results on customer loyalty?

LITERATURE REVIEW

Many earlier research works were done on this topic with various results. Ganesh and Chakraborty (2021) pointed out product brand differentiation could be shown only through digitally-based promotion and, this alone enables the marketer to overcome the competition in the market. The author also pointed out that satisfaction through experience acts as a mediator for the purchase intention among them. Mullatahiri and Ukaj (2019) confirmed that it is e-marketing that builds the brand image among the customers and creates satisfaction thereby leading to commitment and loyalty. Aslam *et al.* (2020) confirmed that website user interfaces quality, information quality, awareness of e-Commerce, and perceived privacy were act as significant predictors for e-customers trust and loyalty.

Danei, Karimi, and Moghaddam (2016) found that advertising in mass media has an impact on customer loyalty, and its factors like brand communication and digital marketing communication help marketers to have a profit and discharge the functions in a better and efficient way. Ayoola and Ibrahim (2020) e-marketing components like search engine optimization; social media marketing and email marketing have a positive impact on customer satisfaction in such a way that the search engine is providing all necessary information to the consumers.

Dhingra, Gupta, and Bhatt (2020) implicated that organizational practitioners need to take initiatives to enhance the trust factor for the website users and credibility of the operations as it is only the predominant factor that influences overall service quality and at the same time, other factors like website design, reliability, responsiveness, and personalization could not be ignored. Dastane (2020) studied the mediating effect of Customer Relationship Management between digital marketing and online purchase intention and found that the mediating effect did not promote a positive impact on purchasing intention rather digital marketing has a significant impact on purchase intention and customer relationship management.

Pricillia *et al.* (2020) analyzed the impact of website design quality and service quality on the purchase intention among 170 customers of Jakarta by considering the trust as a mediating variable and revealed that website design quality has a positive impact on the customer trust and regarding the repurchase intention, if the service quality found high, the repurchase intention among the customers also found high and this intention is based on the trust which found positively associated with the repurchase intention. It is also informed that trust mediates the service quality and repurchase intention positively. Sukendi *et al.* (2021) evaluated and correlated the effect of e-service quality, customer's experience, customer's engagement, and customer's loyalty in the B2C market and found that customer experience was influenced by the e-service quality followed by website design, fulfillment/reliability, customer service, and the privacy.

Khatoon, Zhengliang, and Hussain (2020) investigated the relationship between e-banking service quality and the customer purchasing intention through customer satisfaction as a mediating factor and found that the factors like reliability, efficiency, responsiveness, communication, privacy, and security have a significant and positive impact on purchasing intention. And the positive intention is coming up only when the customer is satisfied with the service. Djumarno, Anjani, and Djamaluddin (2018) analyzed the effect of product quality and prices on customer satisfaction and its mediating role on loyalty and found that product quality significantly increases customer loyalty and it is also proved that customer satisfaction mediated the service quality and the loyalty.

Hanaysha (2017) attempted to study the impact of social media marketing on word of mouth (WoM) promotion and found that both have a significant impact on WoM and this is supported by price promotion. The above review reflected that all the factors like website design quality, product quality, promotions, trust, and customer satisfaction were significantly affecting customer loyalty.

There are many studies available on the topic selected for this study but the gap noticed with the earlier research is no one research has focused on the electronic goods industry and not even a single study was done in Tamilnadu. Also, the author has considered trust as the mediating variable between digital marketing and customer loyalty in addition to customer satisfaction.

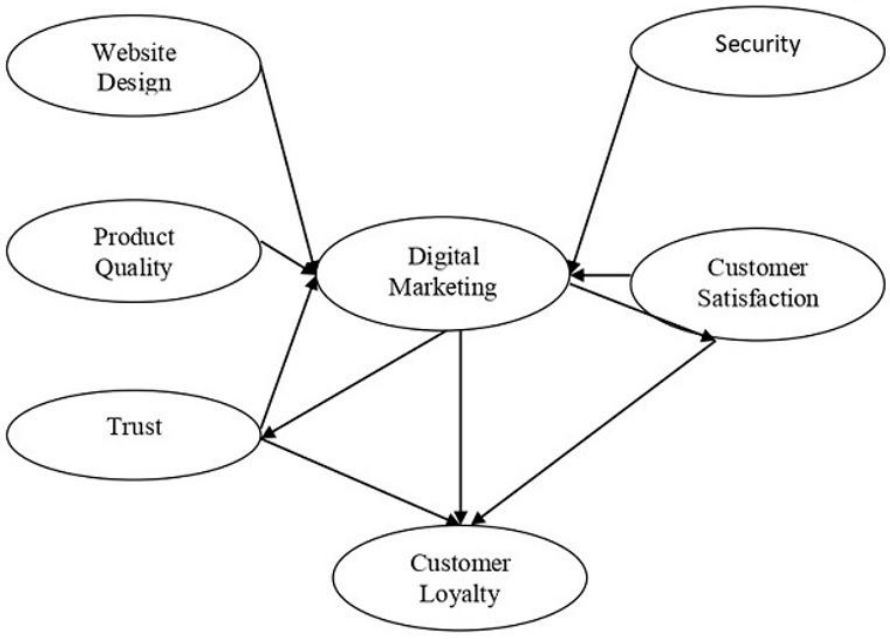

Figure 1: Conceptual Model of the Study (Source: Authors' depiction)

METHODOLOGY

Objectives

Objectives in every research are framed based on the constructs considered in the conceptual model and it also explains the nature of the study and the factors considered. In other words, it is the road map for the outcome of the result of the study. In this study, the authors have considered the following objectives.

1. To analyze the association between the demographic profile of the respondents and the factors that influence digital marketing and customer loyalty.
2. To examine the intercorrelation among the factors under digital marketing.
3. To investigate the impact of customer satisfaction on customer loyalty.
4. To find the mediating role of trust and customer satisfaction between digital marketing and customer loyalty.

Hypothesis

A hypothesis is a concept of any formulation under known conditions and proving the relationship between the factors and variables that occurred in every research works. In this study, various factors that affect the dependent factors (i.e. website design, product design, security, trust) were considered, and based on the anticipated result, the investigator has formulated the following hypotheses and analyzes the acceptance of those through the sampling data collected for this study.

H_1: There is a significant association between the demographic profile and the factors that influence digital marketing.

H_2: Trust positively mediates digital marketing and customer loyalty.

H_3: Customer satisfaction positively mediates digital marketing and customer loyalty.

H_4: There is a significant impact of customer satisfaction on customer loyalty.

As this study is a descriptive and survey nature in connection with the effectiveness of digital marketing among the customers on a pan-India basis, a general survey was conducted in each state considering it as a cluster, and from the total sample collected through this general survey, simple random sampling was applied and the respondents were selected finally. For an unknown sample size, it is suggested to have 200-500 samples (Tabachnick and Fidell 2007), and based on this; the researchers have considered 750 samples above the prescribed limit to have a precise result and

distributed the questionnaire among the customers. Before proceeding with the survey, a pre-test was conducted among 100 respondents to ascertain the reliability value of the instrument and found the reliability value of the constructs and variables in the questionnaire is found as 0.898 that confirming the threshold limit as prescribed by Nunnally in Peterson (1994) during their research towards Cronbach's coefficient alpha value. After possible consideration of the correction in the instrument, sequence along with the feedbacks of the experts, the questionnaire was distributed through e-mail and other possible ways for the customers residing in various states in India. But while checking the rate of return to the filled questionnaire, the researcher has received only 682 questionnaires and out of which 603 could be reused for further analysis with the percentage of 80.40%. The period of this particular study is from May 2021 to July 2021. The research has adopted the quantitative method to investigate the association and the relationship between the factors. The statistical packages applied here are IBM SPSS 20 and AMOS 24 and tools like percentage analysis, confirmatory analysis (CFA), and Karl Pearson's correlation, multiple regression techniques, analysis of variance (one-way), and paired sample 't' analysis was carried out and the result revealed is discussed in the following sections.

Structural Equation Modeling

The various hypothesis in every study could be tested properly only through confirmatory factor analysis through the goodness of fit indices obtained through structural equation modeling and this also technique enables to check the uni-dimensionality nature and, the latent structure of the model (Hoyle 2004). The values as prescribed in the above study were considered to confirm the fit of the model. The result revealed through structural equation modeling is detailed in Figure 2.

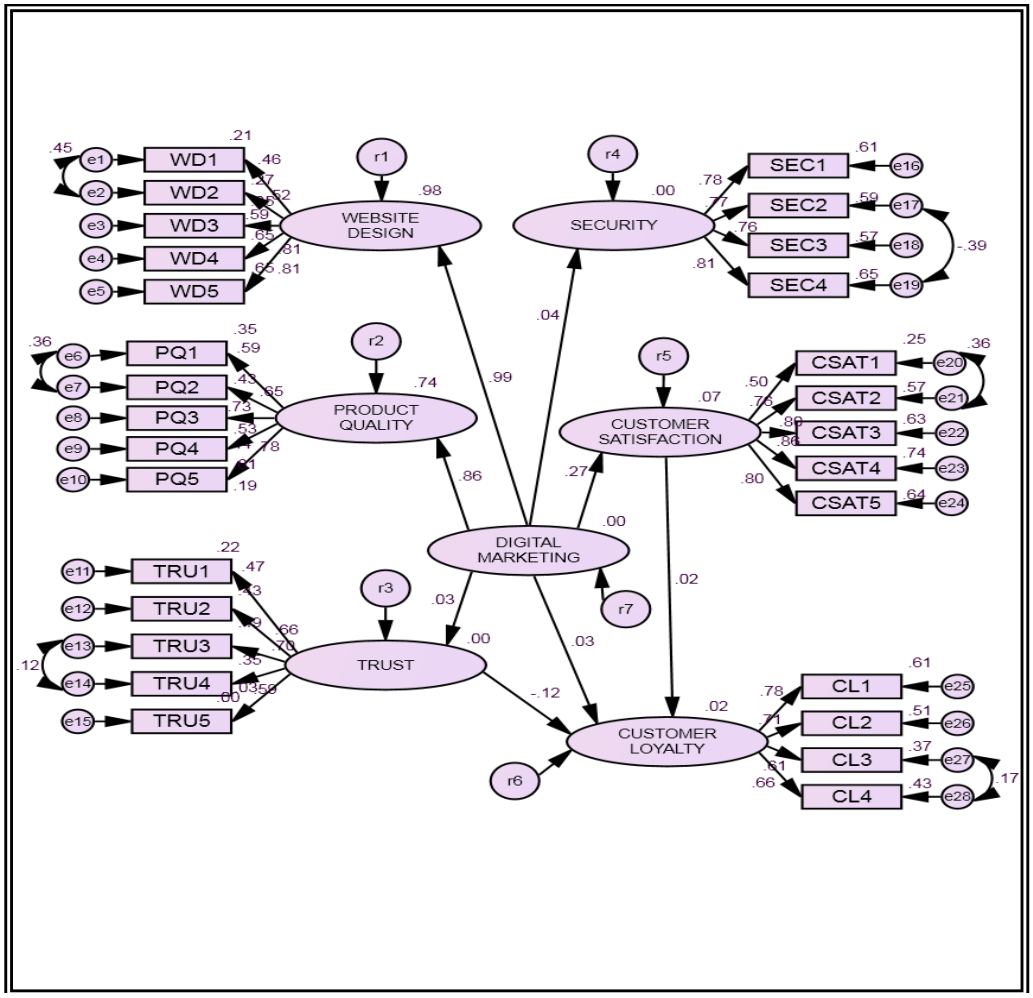

Figure 2: Structural Equation Modeling (Source: Authors' depiction)

Diamantopoulos and Siguaw (2000) in Tsoukatos and Rand (2006) informed that the chi-square test value along with the RMSEA, ECVI, standardized RMR, GFI, and CFI indices are sufficient to assess an overall model fit of every research. In this study, it is seen that all the goodness and badness indices are met by the measurement model ($\chi 2$/ df = 3.316, GFI = 0.901, NFI =0.841 CFI = 0.902, IFI: 0.901, RMR = 0.058 and RMSEA = 0.062, AGFI=0.897, P Ratio=0.889 and confirmed the goodness of fit of the model considered with the constructs.

Demographic Profile of the Respondents

Demographic profile plays an important role in the purchasing behavior among the customers and in this study, various demographic variables for getting the opinion of the respondents in connection with the objectives framed and the results revealed is detailed in the following Table 3 below:

Table 3: Details of the Demographic Details of the Respondents (Source: Authors' depiction)

Sl. No.	Demographic Variable		Total Number of Respondents (n)	Percentage (%)
01.	Age	Less than 20 years	63	10.4
		21-40 Years	**396**	**65.8**
		41-50 Years	101	16.7
		Above 50 Years	43	7.1
02.	Gender	**Male**	**413**	**68.5**
		Female	190	31.5
		Transgender	0	0
03.	Marital Status	**Married**	**440**	**73.0**
		Unmarried	163	27.0
04.	Educational Qualification	Illiterate	24	3.1
		SSLC	116	19.2
		HSC	**199**	**33.0**
		Under Graduate	127	21.1
		Post Graduate	131	21.7
		Others	30	5.0
05.	Occupation	**Public Sector**	232	38.5
		Private Sector	147	24.4
		Business	78	12.9
		Agriculture	99	16.4
		Others	47	7.8
06.	Monthly Income	Less than Rs.20000/-	123	20.4
		Rs.20001/= to Rs.35000/=	**320**	**53.1**
		Rs.35001/= to Rs.50000/=	143	23.7
		> Rs.50000/=	17	2.8
07.	Status of the Residential Area	Urban	255	42.3
		Rural	**274**	**45.4**
		Semi Urban	74	12.3
08.	Type of Family	Nuclear	269	44.6
		Joint	**334**	**55.4**
09.	What Type of Electronic Goods did You Purchase Based on Digital Marketing?	**Mobile phone**	**264**	**43.8**
		Television	52	8.6
		Washing Machine	136	22.6
		Computer system	26	4.3
		Others	125	20.7

From the above, it is seen that the maximum respondents of this study were under the age group of 21-40 years (65.8%) and the maximum was found under the male category (68.5%). Regarding their marital status, it is noticed that 440 respondents

with 73% were got married and a maximum of the total respondents were having higher secondary qualification (199 with 33%).

Regarding the occupation, 232 respondents with 32.5% were having employment in the public sector and 147 respondents with 24.4% were in the private sector. The salary of the maximum respondents ranged from Rs.20001/= to Rs.35000/= and most of them were having their residence in rural areas (45.4%) and living jointly (55.4%).

When the inquiry was made about the electronic goods they have purchased based on the digital marketing, it is revealed that 264 respondents with 43.8% were informed that they have purchased a mobile phone and 136 with 22.6% have informed that they have purchased a washing machine. Next to this, 125 respondents with 20.7 percent have purchased other items like iron boxes, DVD players, and accessories to the mobile phone. Only 26 with 4.3 percent have been informed that they have purchased computer systems based on digital marketing advertisement.

Karl Pearson's Correlation

To analyze the inter-correlation between the various factors that influence digital marketing and customer loyalty, Karl Pearson's correlation analysis was conducted and the result is presented in Table 4.

Table 4: Association between the Factors That Influencing Digital Marketing and the Customer Loyalty (Source: Authors' depiction)

Correlations						
	Website Design	Product Quality	Trust	Security	Customer Satisfaction	Customer Loyalty
F1	1	0.689**	0.313**	0.029	0.274**	0.441*
F2		1	0.207**	0.014	0.158**	0.511*
F3			1	-0.050	0.114**	0.372*
F4				1	0.349*	0.443
F5					1	0.327*
F6						1
**. Correlation is significant at the 0.01 and 0.05 levels (2-tailed).						

From the above result, it is confirmed that factors like product quality, trust, and customer satisfaction were found positively correlated with customer loyalty at 1% and 5% level of significance All the factors were found to have low to moderate correlations with each other (R=+0.10 to +0.7) and hence the performance of each factor were found to be similar in the study of Schober *et al.* (2018). The highest correlation is found between 'product quality' with 'customer loyalty' with the value of (r=-0.659**) at a 1% level of significance and the lowest correlation was found between 'trust' and the

'security' with the value of (r=0.158**) at 1% level of significance. Through the R^2 value, 26% variation was shown by the product quality with customer loyalty and 11% variation with the customer satisfaction.

Multiple Regression Analysis

To analyze the impact of customer satisfaction on customer loyalty among the respondents of electronic goods inspired through digital marketing, multiple regression analysis was carried out by considering customer loyalty as the dependent variable and customer satisfaction as the independent variable. The details of the analysis are shown in Table 5.

Table 5: Details of Regression Coefficient and the Statistics for the Proposed Model of the Study (Source: Authors' depiction)

Factor (Dependent)	Factor (Independent)	Regression Coefficient (B)	S.E	't' Test Value	Tolerance Value	VIF Value
Customer Loyalty	(Constant)	8.717	0.508	17.158	-	-
	Customer Satisfaction	0.020	0.028	0.661	1.000	1.000
	R^2 Value	0.271				
	Adjusted R^2 Value	0.070				
	F Value	3.437**				
	Number of Samples	603				
	Durbin Watson Test Value	1.610				
**- 1% level of significance.						

From the result of the multiple regression analysis, the value of the 'F' was found to be 3.37 which is significant at a 1% level of significance and this witnessed the model fit of the study. In this case, customer satisfaction is not found as a significant forecaster for customer loyalty and the value of R^2 also confirmed it with a way that a unit increase in the independent variable increases the dependent variable (customer loyalty) to the tune of 7%. From the value of Durbin Watson (1.610) and the Tolerance Value and Variance Inflation Factor, it is confirmed that there was no multicollinearity noticed among the factors and variables.

Compare Mean Analysis through "t" test and ANOVA

To find the association between the demographic variables considered in this study and the factors that influence digital marketing and customer loyalty in the case of electronic goods, paired sample 't' test and the one-way ANOVA - 'F' test was carried out, and the findings were detailed in Table 6.

Table 6: Association between the Demographic Variables and the Factors Considered Under Digital Marketing and the Customer Loyalty (Source: Authors' depiction)

Factors	Website Design	Product Quality	Trust	Security	Customer Satisfaction	Customer Loyalty
PAIRED SAMPLE 't' TEST						
Marital Status	115.349**	112.609**	129.624**	107.837**	108.632**	112.564**
Type of Family	115.328**	111.610**	128.601**	106.088**	114.214**	121.547**
ONE-WAY ANOVA – 'F' TEST						
Age	2.372	2.956*	3.616*	1.440**	7.082**	4.385**
Gender	4.078**	2.713*	1.323	6.574**	3.082	5.123
Educational Qualification	1.710	1.351	1.255	1.085**	3.014	4.012
Occupation	2.905*	1.990	2.518*	2.948*	6.542	4.011*
Monthly Income	0.740	1.311	0.465	0.103	1.542	1.852
Type of Electronic Goods Purchased Through the Effect of Digital Marketing	4.794*	1.601	2.853*	3.142*	4.852*	2.864**
****- 1% level of significance and *-5% level of significance**						

Regarding the association between the demographic variables of the respondents of this study and with the factors that influence the digital marketing, from the result, it is revealed that all the factors were significantly associated with marital status, Type of the family found statistically as the 't' value is significant at 1% level.

The result of the one-way ANOVA confirmed that there is a significant association between the factors considered under digital marketing, customer satisfaction, and loyalty at 1% and 5% level of significance except with the monthly income. In addition, the security factor alone was found significantly associated with the educational qualification at 1% level of significance and gender with website design, product quality, and security. Occupation and type of electronic goods purchased by the influence of digital marketing are not significantly associated with product quality.

Managerial Implication

The core objective of this study is to analyze the effectiveness of DM on customer loyalty particularly towards electronic goods and hence the respondents who were influenced by digital marketing were contacted all over Tamilnadu in India. To confirm the goodness of fit of the constructs taken up for consideration in this study, structural equation modeling was done and found that all the indices were having a threshold limit as suggested by the earlier studies. Based on the research gap and the outcome of the earlier research work of this domain, objectives and hypotheses were framed. Various precious tools were applied to identify the association between the factors and the constructs that influence the DM towards electronic goods and the result revealed that there is a significant association exists between the factors that influence DM but at the same time, customer satisfaction is not having any impact on the customer loyalty and the result found controversy with the findings of (Mullatahiri and Ukaj 2019) who informed that e-marketing built a brand image among the customers and creates satisfaction and this led to repurchase intention and the findings of (Djumarno, Anjani, and Djamaluddin 2018) who proved that customer satisfaction mediating the marketing and loyalty and rejected the alternative hypothesis (H_4). Trust is also having a negative mediating value between digital marketing and customer loyalty and thereby rejecting the alternative hypothesis (H_2) but customer satisfaction mediates the factor of DM and customer loyalty positively and thereby accepting the alternative hypothesis (H_3). There is a significant association found between the demographic profile of the respondents and the factors that influence digital marketing, customer loyalty, and thereby accepted the alternative hypothesis (H_1). As this is marketing based on a digital platform, there is no possibility of visual communication as well as pre-inspection of the products, marketers need to create trust among the customers and ensure the security of their personal information so that they could able to increase the sales and earn profit maximization. At the same time, they should satisfy the needs and wants of the customers through an effective survey with the target audience.

Limitation and Scope for Future Research

The study is conducted among the respondents who have inspired the DM and initiated their purchase, this is an unknown population selected through simple random sampling methods, and hence findings may not be applicable for other markets. The factors considered under DM are also not adequate, and yet many factors that influence DM. Hence, further research on this topic may be conducted with different sample sizes and with various sampling techniques through cross-sectional study in various geographic areas so that more precious results may be obtained which will be useful for the entire audience universally.

CONCLUSION

This research intended to find whether the customers who have purchased the electronic products have received their expected perceived value and found satisfaction based on the digital marketing information. For this purpose, important constructs like website design, product quality, trust, and security were taken up to find their impact on digital marketing since all these factors affect customer satisfaction. Also, an attempt was made to study the mediating role of customer satisfaction between digital marketing and customer loyalty, and from the opinion-based result of the customers, it is concluded that customer satisfaction was not highlighted as a significant forecaster for the loyalty among them and this clearly explained that whether they have satisfied or not, they were purchasing the electronic goods on the attractiveness of the digital marketing. But at the same time, there witnessed a negative impact of trust on customer loyalty. As customers always knew the features of products through the information given through advertisements in the digital platform, this result confirmed that those customers have not attained the perceived value as expected by them in the purchased electronic goods. Most of the customers of this study have purchased only mobile devices based on the information communicated through digital marketing they have expressed their dissatisfaction with the purchase. However, this level of dissatisfaction has not affected their loyalty. But marketers need to be very cautious in creating trust among their customers by providing quality and real information about the products on the website since the brand is very important for the consumers and it is acting as an interface between the customers/consumers and the marketers. It is also suggested to review the opinion and the feedback of the customers to find where they are lying behind in creating trust among the customers so that they could able to rectify the problem immediately.

COMPLIANCE WITH ETHICAL STANDARDS

Acknowledgments:
Not applicable.

Funding:
Not applicable.

Statement of human rights:
All procedures performed in studies involving human participants were following the ethical standards of the institutional and/or national research committee and with the Declaration of Helsinki and its later amendments or comparable ethical standards.

Statement on the welfare of animals:
This article does not contain any studies with animals performed by any of the authors.

Informed consent:
Not applicable.

REFERENCES

1. Aslam, W., Hussain, A., Farhat, K. & Arif, I. (2020). Underlying factors influencing Customer's Trust and Loyalty in E-Commerce. *Business Perspectives and Research*, 8(2), pp.186-204.
2. Ayoola, J. B & Ibrahim, A.U. (2020). Effect of Electronic Marketing on Customer Satisfaction: Evidence from Selected Airlines Services in Nigeria.IOSR *Journal of Business and Management*, 22(1), pp.01-09.
3. Balakrishnan, K.P.D.M., Dahnil, I.M., & Yi, J.W. (2014). The Impact of Social Media Marketing Medium TowardPurchaseIntention and Brand Loyalty Among Generation Y. *Procedia, Social and Behavioral Sciences*, 148, pp.177-185.
4. Danei, H., Karimi, O. &Moghaddam, M. (2016). The Effect of Repeat in Advertising on Customer Loyalty CosmeticProducts "1394 Tehran Case Study. *International Journal of Engineering Science and Computing*, 6(4), pp.3961-3966.
5. Dastane, O. (2020). Impact of Digital Marketing on Online Purchase Intention: Mediation effect of Customer Relationship Management. *Journal of Asian Business Strategy*, 10(1), pp.142-158.
6. Dhingra, S., Gupta, S. & Bhatt, R. (2020).A Study of Relationship among ServiceQuality of E-Commerce Websites, Customer Satisfaction, and Purchase Intention. *International Journal of E-Business Research*, 16(3), pp.42-59.
7. Djumarno, Anjani, S. & Djamaluddin, S. (2018). Effect of Product Quality and Price on Customer Loyalty through Customer Satisfaction. *International Journal of Management and Business Invention*, 7(8), pp.13-20.
   Ganesh, D., & Chakraborty, D. (2021). Digital Transformation of Marketing Strategies during a Pandemic: Evidence from an Emerging Economy during COVID-19. *Sustainability*, 13, 6375, pp.1-19. https://doi.org/10.3390/su13126735
8. Hanaysha, R.J.(2017).Impact of Social Media Marketing, Price Promotion, and Corporate Social Responsibility on Customer Satisfaction. *Jindal Journal of Business Research*, 6(2), pp.132-145.
9. Hoyle, R.H. (2004). Confirmatory Factor Analysis. *Encyclopedia of Social Science Research Methods, 1*: 169-175.
10. Khatoon, S., Zhengliang, X. & Hussain, H. (2020). The Mediating Effect of Customer Satisfaction on the Relationship Between Electronic Banking Service Quality and Customer Purchase Intention: Evidence from the Qatar Banking Sector. *SAGE Open*, April-June, pp.1-12.
11. Merisavo, M. (2006). The Effect of Digital Marketing Communication on Customer Loyalty: An Integrative Model and Research Propositions. *Working Paper*, Helsinki School of Economics.

12. Mullatahiri, V., & Ukaj, F. (2019). The Effects of E-marketing Communications on Brand Loyalty: The Case of Mobile Telephone Operators in Kosovo. *Journal of Distribution Science*, 17(6), pp.15-23.
13. Peterson, Robert A (1994). A Meta-Analysis of Cronbach's Coefficient Alpha." *Journal of Consumer Research*, 21(2), pp. 381–91, http://www.jstor.org/stable/2489828
14. Pricillia, M., Budiono, H., Wiyanto, H. & Widjaya, H. (2020). The effect of Website design Quality and Service Quality on Repurchase intention among Shoppe Customers in Jakarta, with Customer Trust as a mediating variable. Conference proceedings, *Advances in Economics, Business and Management*, 174. pp.38-44.
15. Schober, P., Boer, C., Lothar, A., S. (2018). Correlation Coefficients: Appropriate Use and Interpretation. *Anesthesia & Analgesia*, 126(5),1763-1768.
16. Sukendi, J., Harianto, N., Wansaga, S. & Gunadi, W. (2021). The Impact of E-Service Quality On Customer Engagement, Customer Experience and Customer Loyalty in B2c E-Commerce. *Turkish Journal of Computer and Mathematical Education*, 12(3), pp.3170-3184.
17. Tabachnick, B. G., and Fidell, L. S. (2007). *Using multivariate statistics* (5th ed. Boston, MA: Pearson.
18. Tsoukatos, E., & Rand, K.G. (2006). Path analysis of perceived service quality, satisfaction, and loyalty in Greek insurance. *Managing Service Quality*, 16(5), pp. 501-519.

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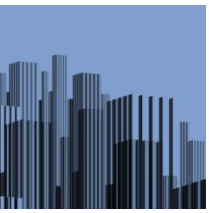

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EVALUATION OF TECHNOLOGICAL ADVANCEMENTS AND THEIR FUTURE IMPACT ON EXERCISING OF HUMAN RIGHTS IN SOCIETY AND POLITICS

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Abstract: *This research focuses on evaluating the impacts of technological advancements and their extended future aspects on exercising human rights in society and politics. Furthermore, the current prospects of technological advancements contribute a great portion to the advancement of society and culture. However, it also emerges and involves politics in the scenario. The research aims to explore different aspects of modern technological advancements in terms of determining the possible implementations of technology in society and politics. As a part of the research methodology, it can be highlighted that the research follows a primary research method. It collects primary quantitative data through an online survey by following a random sampling procedure. The sample population of the online survey was 50, and the ultimate sample size of this research is 39. The significance of the research lies over the identification of the technological advancements as it is the major component that impacts the future social and political community.*

Keywords: *Human Rights; Society; Technology; Politics; Advancement*

INTRODUCTION

This paper focuses on the evaluation of technological advancement and its impact on the extended future of human rights in politics and society. In this paper, technological advancement and its contribution to the greater advancement of society and culture are critically evaluated in current political situations. The research aims to explore different aspects of modern technological advancement in terms of determining

the possibilities of implementing technological advancement in human rights in social and political aspects. This paper has different research objectives, such as evaluating different technological advancements in the political aspects. Another objective of this research paper is to identify the role of technological aspects in society, and thus, critically to evaluate the effect of technological advancement on politics along with to determine the impact of technological advancement for maintaining human rights in political and social aspects. This research is concerned about the different aspects of advancements in technologies and their impact on human rights management.

BACKGROUND

Technology advancement has supported society to protect human rights by offering opportunities to share ideas and build connections beyond the immediate community. For instance, the internet has increased the opportunity and possibility for education, work, and access to healthcare. On the other hand, artificial intelligence has empowered organization and healthcare to make decisions for the benefit of society by offering a quality of data that inform policy on human rights and politics. Contrarily, as Risse (2019) argued, digital technology has made human privacy vulnerable by collecting mass data on human privacy.

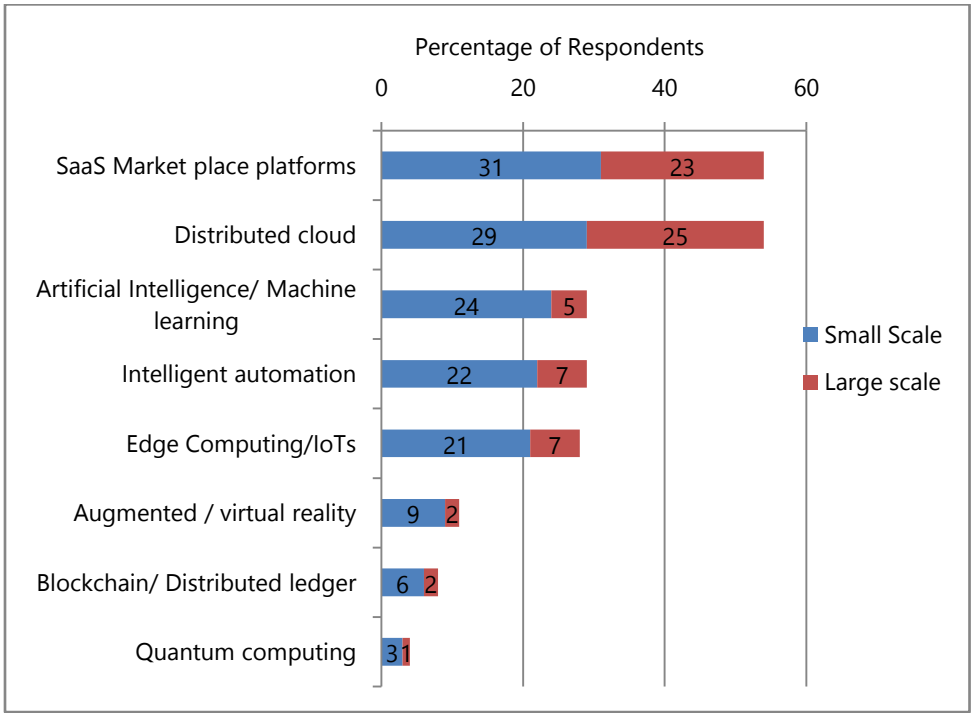

Figure 1: Technology Adoption Rate (Source: Statista 2021)

Figure 1 depicts the most widely used innovation today. Because of mechanical progression, common liberties violations are submitted in public safety and counterterrorism by basic liberties relating to state-run administrations. On the other hand, the internet, which provides freedom to human rights, supports human innovation and creativity to express ideas and share ideas and knowledge with others (Turner 2021). The positive impact of technology has been observed in education, healthcare service, and transportation service by enabling the organization to better present information and easy sharing of knowledge.

The digital public sphere has enabled the citizen to challenge the political power of governments and ask for human rights by creating activism campaigns, online protests, and social movements (Jørgensen 2018). The internet has endorsed the nation's political body to reach public services in every corner of the nation with the support of the internet. Since the public is getting an opportunity to interact with the political leader through online platforms, the political body is bound to respond to the public demand. Contrarily, as argued by Whyte (2019), the internet has enabled politicians to conduct election campaigns to keep in touch with constituents, groups, and individuals. Hence, technological advancement has both positive and negative impacts on society development, human rights protection, and politics.

With the advancement of technological innovation and enhancing the rate of digital technology adoption rate, the citizens get an open platform to raise the voice of human rights and criticize the good and bad factors of the political organization. On the other hand, the increasing rate of internet users has made human life more vulnerable to cyberattacks and financial loss. Henceforth, the research discussed the factors of advanced technology and analyzed its role in social development and police. Moreover, the research has discussed the perception of society and political bodies to protect human rights through the help of advanced technology.

METHODOLOGY

To include the scientific part and factual knowledge of the research factor, a positivist research philosophy was used. In this study, an inductive strategy was used to conclude by evaluating the research hypothesis with critical observation. Thus, in the inductive process, a hypothesis is generated, and that hypothesis is critically observed, and from that observation, a new theory on the study context is developed in the current research (Kothari 2004). The descriptive research design was adopted to describe the research context or phenomena and research factors systematically. Thus, the present era of digital innovation and its effect on human rights has been described in a real-time context.

Sampling Techniques

The sample population of the online survey was 50, and the ultimate sample size of this research is 39. A random sampling technique has been followed in this research to collect the online survey response. As mentioned by Saunders *et al.* (2007), in simple random techniques, every responder in the research population has an equal probability of being the respondent in the sample. Thus, random sampling techniques have supported an unbiased representation of the total population.

Data Collection

Primary quantitative data have been collected through conducting an online survey. The close-ended questionnaire has been set in this research based on the objective to collect quantitative data from the respondents. Kothari (2004) illustrated that primary data of online surveys support getting real-time data on the research context. The online survey link has been sent to the e-mails of the responders, and they were requested to take part in the survey and provide a response to the questions.

Data Analysis

The collected quantitative data from the online survey has been graphically plotted in the excel sheet. The developed graph and chart analysis has been done to get the appropriate answer to the research question. As per the thought of Kumar (2018), data analysis is the most vital part of the research where the research objectives are met with the support of collected data. Therefore, the data in this research has been quantitatively analyzed to understand the role of technological innovation on human rights and social development.

Ethical Consideration

The collected data from the only survey was manipulated free, and no respondents were forced to participate in the survey. Furthermore, the respondents' data confidentiality was protected, and the research data was stored in a digital lock system (hard disc and memory device on the computer system).

FINDINGS

According to the collected and analyzed data, we discovered the following findings for each question.

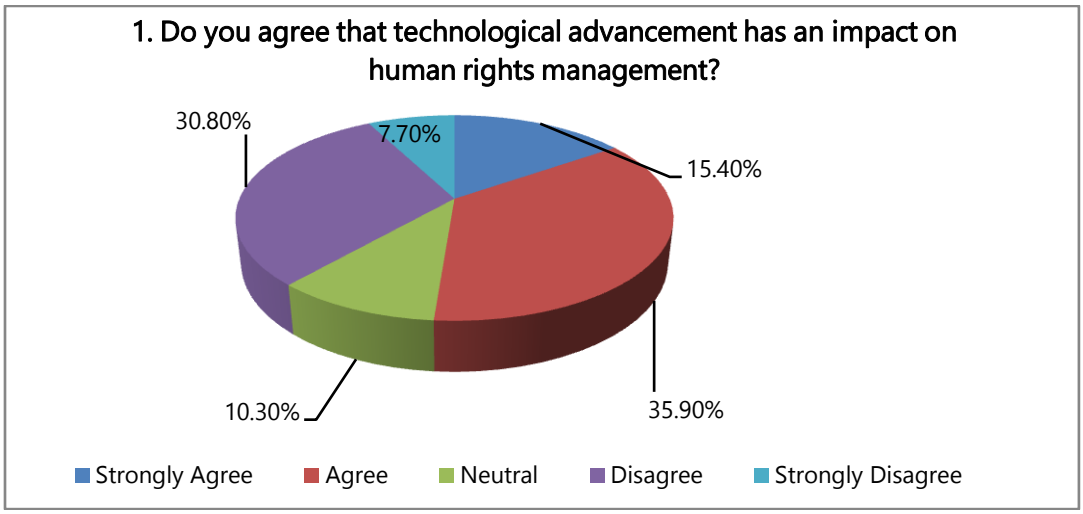

Figure 2: Q/A 1 (Source: Authors' depiction)

It has been identified that 51.3 percent of respondents have agreed that technological advancement makes a strong impact on human rights management in society.

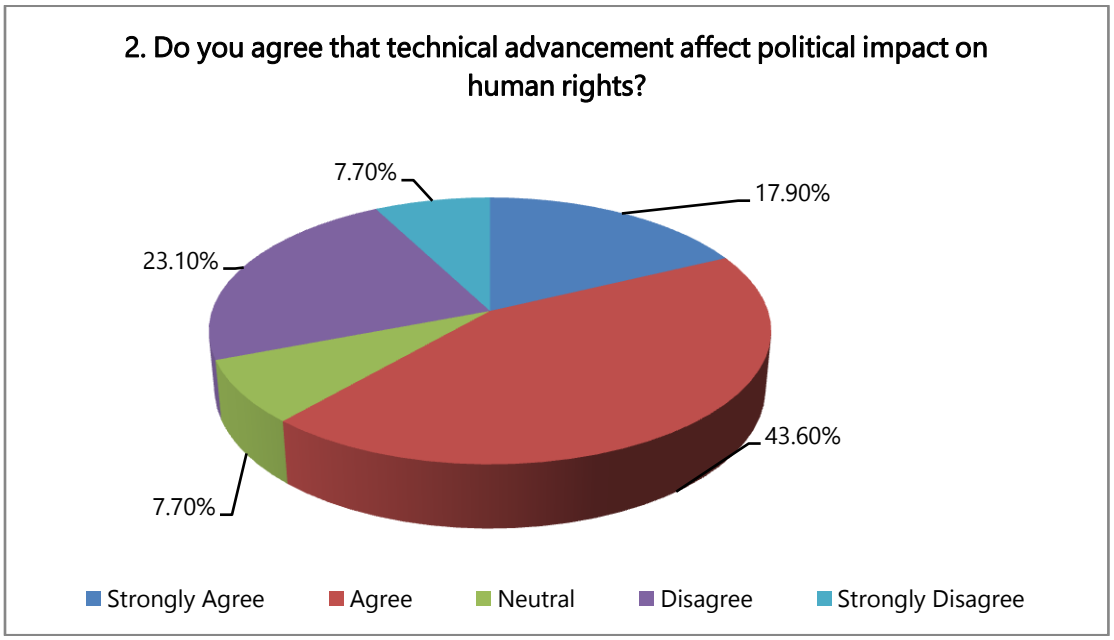

Figure 3: Q/A 2 (Source: Authors' depiction)

According to the second question, 61.5 percent of the respondents believe that technical advancements help people achieve political rights.

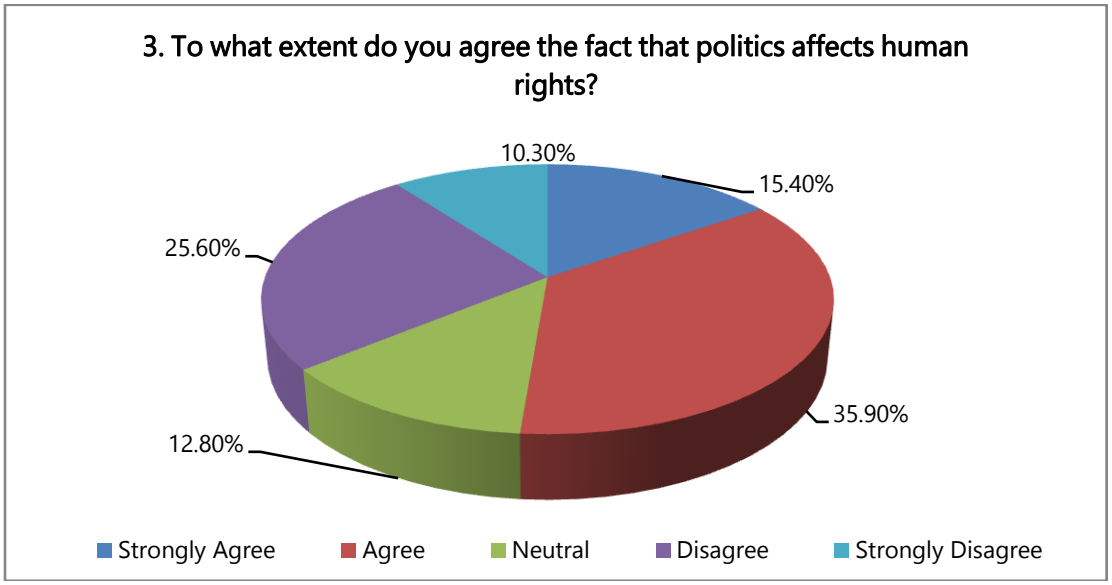

Figure 4: Q/A 3 (Source: Authors' depiction)

Question 3 addresses whether politics has an impact on human rights, and just 35.9 percent of respondents said politics had an impact on human rights in society.

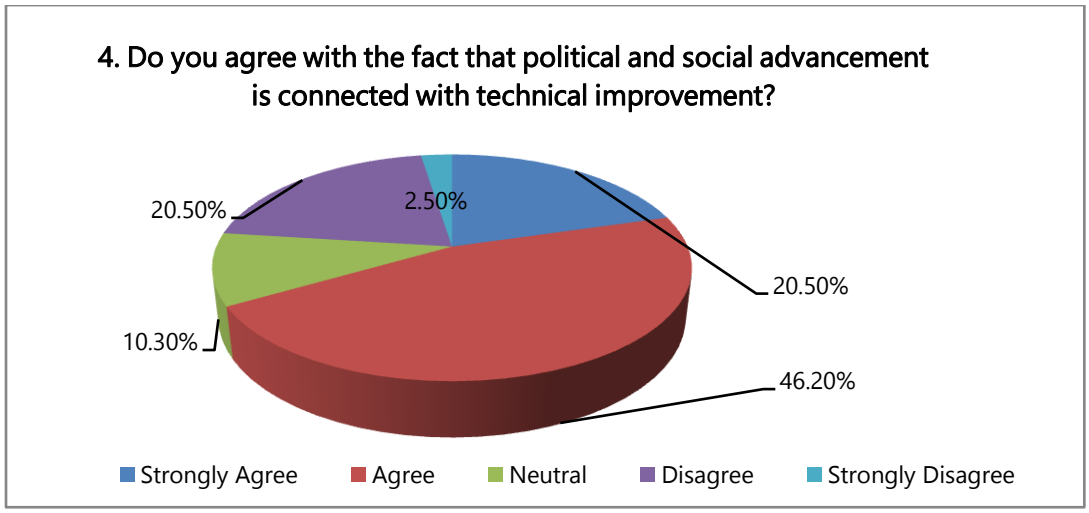

Figure 5: Q/A 4 (Source: Authors' depiction)

According to 66.7 percent of respondents, technological advancement is linked to political and social advancement. As a result, societal development has an impact on human rights management from a political perspective.

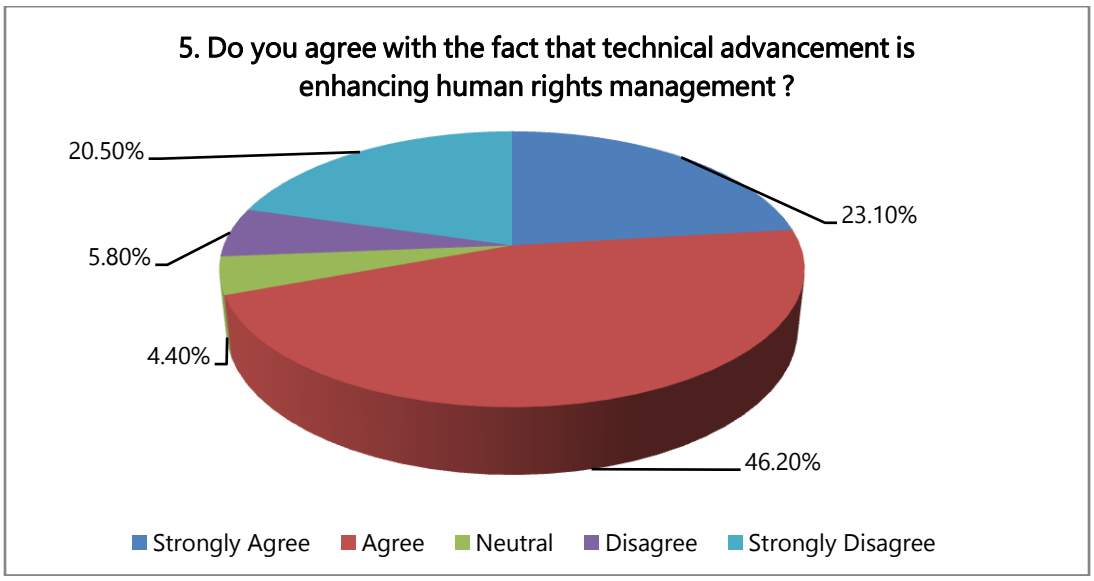

Figure 6: Q/A 5 (Source: Authors' depiction)

According to 69.3 percent of respondents, technological advancement can improve human rights management capacities.

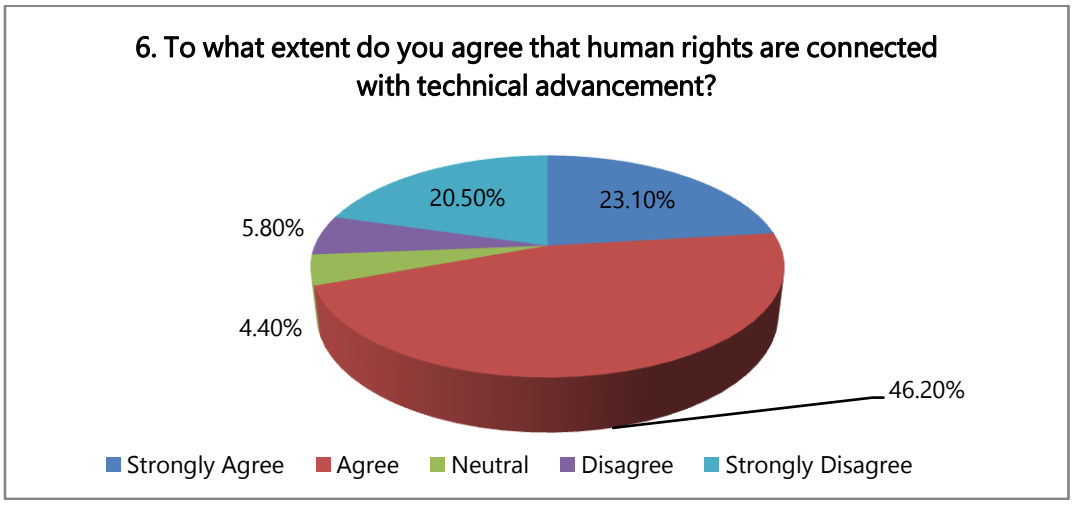

Figure 7: Q/A 6 (Source: Authors' depiction)

When asked about the relationship between technology advancement and its impact on human rights management in future politics and society, however, 26.3 percent of respondents disagreed, while 69.3 percent agreed.

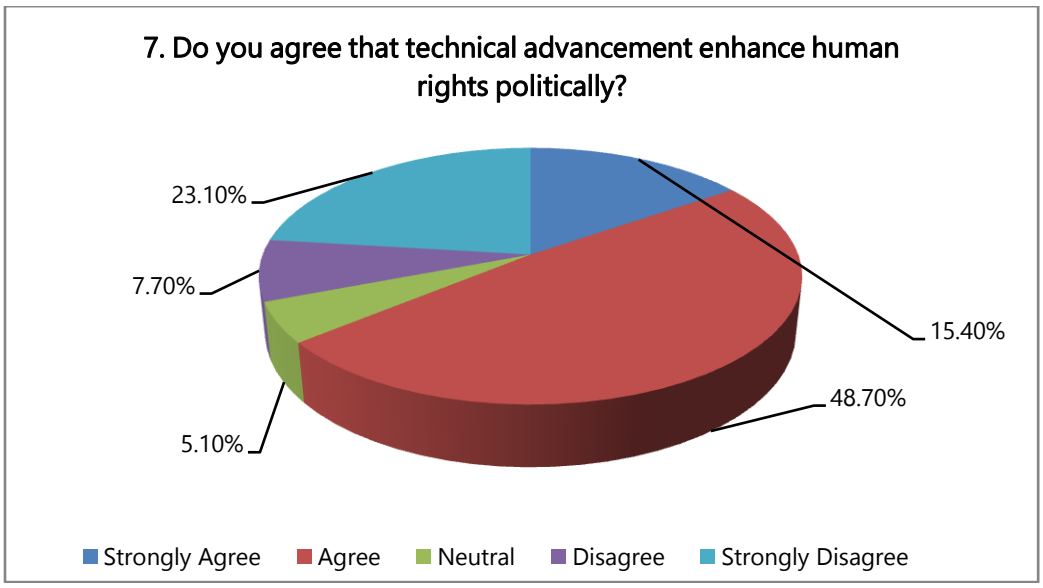

Figure 8: Q/A 7 (Source: Authors' depiction)

When asked if technological advancement has a positive impact on human rights in this context, 65.1 percent agreed. However, 23.10 percent of those polled strongly disagreed, believing that technological advancements have no political impact on human rights management.

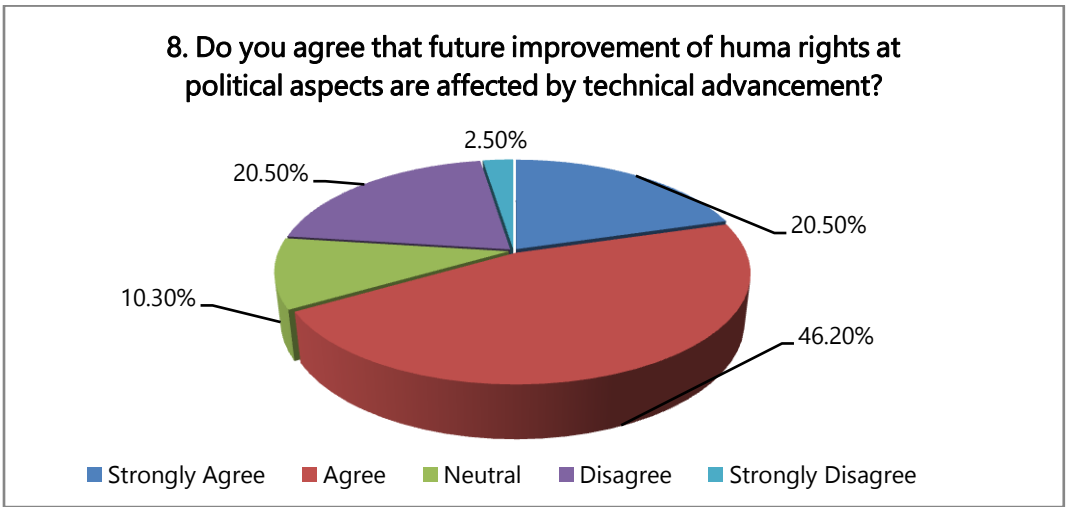

Figure 9: Q/A 8 (Source: Authors' depiction)

Following question 8, 46.20 percent of respondents felt that technological advancements have an impact on future human rights improvements since they are linked to political factors of the country. However, 10.3 percent of those polled remained neutral.

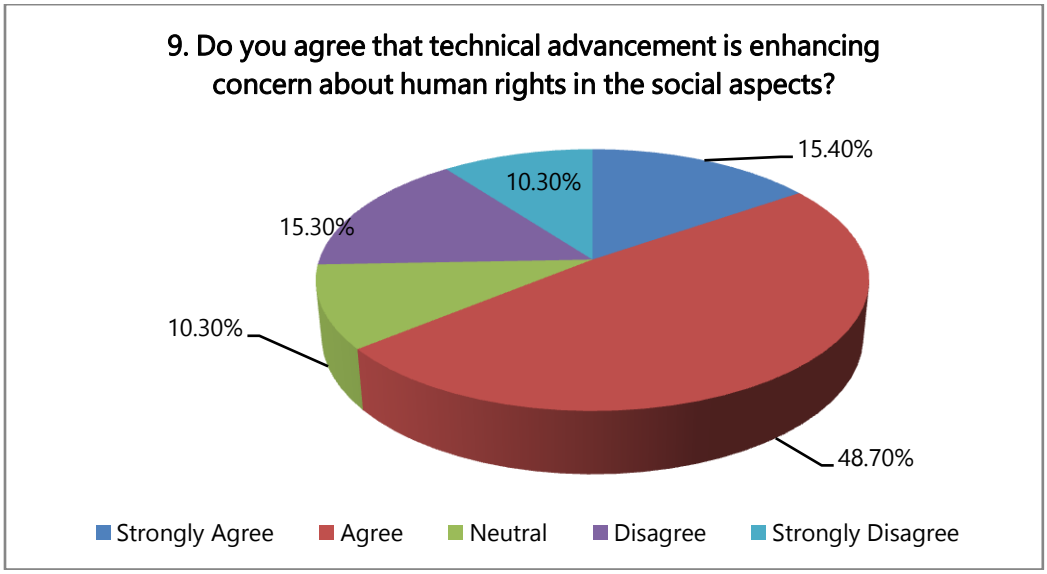

Figure 10: Q/A 9 (Source: Authors' depiction)

Concerns about human rights management in the social aspects are increasing as technology advances, and 64.1 percent of respondents agreed on this point. Furthermore, 10.30 percent of respondents strongly disagreed.

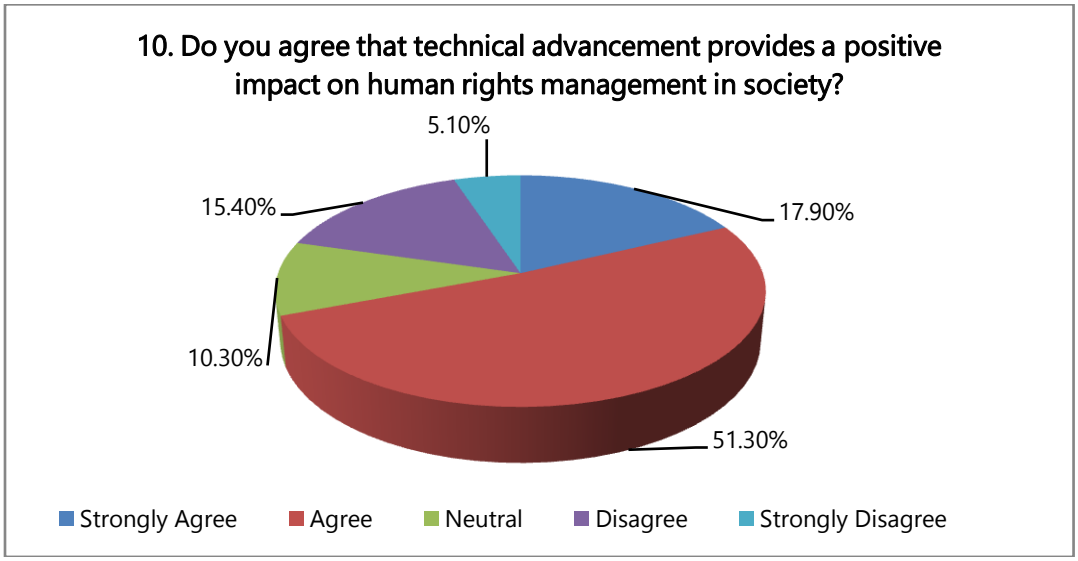

Figure 11: Q/A 10 (Source: Authors' depiction)

Although 15.4 percent of respondents disagreed that technological advancement has a positive impact on human rights management in society, 69.2 percent agreed. Thus, technological innovation, according to the majority, has a positive impact on the political and societal components of human rights management.

DATA ANALYSIS

The Impact of Technological Advancements

According to 69.2% of the respondents, the majority of them have agreed that technical advancements provide a positive impact on human rights management in society. As opined by Mahroof (2019), technological advancements helped the human rights acts to become more people-centric and display a high level of flexibility. Furthermore, technical advancement builds opportunities and builds conditions to share ideas beyond the immediate. This is the way the internet has suspended the possibilities for work in education and easy access to health care and many different factors that are basic human rights in society. Moreover, any sort of political violation of basic liberties can give subtitles with the assistance of satellite and other sources, and this is progressively being utilized for checking and uncovering cross common freedoms in regards to political perspectives in any country.

This advanced technology helps the citizens to grasp their rights properly and find out with the political resources that are trying to reduce human rights. Because of technological advancement, putting barriers in front of individuals who do not belong to political sources and saving any politically strong citizen is becoming more difficult. On the other hand, Saberi *et al.* (2019) have stated that the use of digital technologies helps governments to provide more assurance to human rights. In contrast to this, political services such as government services become easy along with that the government becomes able to put a wealth of information regarding their citizens without having too much difficulty due to technological advancement. According to the conducted survey, 69.3% of the respondents agreed that technical advancement plays a crucial role in improving human rights.

The Impact on Increasing Human Rights Awareness

Among the respondents, 64.1% stated that technological advancement enhances concern about human rights and proper management of human rights in the country. However, 23.1% of respondents have also disagreed with the fact technical advancement is not connected with human rights awareness. As highlighted by Ienca and Andorno (2017), technological advancements highlight cognitive liberty, psychological continuity, and the right to mental privacy. Therefore, all these aspects in social human rights management enhance effectiveness. Social media, one of the most essential and effectively used parts of technological awareness, enhances human rights-related awareness. Social media can educate people about their rights by exposing its violation and focusing attention on individuals and different areas that need to be protected by human rights. Social media also promotes different cases of human rights violations and

can provide publicity to the individuals and organizations who are securing human rights in different aspects. This helps the government to provide every citizen satisfaction regarding their human rights and their management. Whenever citizen becomes aware of different human rights violation cases, they become more and more try to maintain different human rights. In addition, Popenici and Kerr (2017) have argued that technological advancements shed light on the different aspects of society that affect human rights, such as racism. According to 66.7% of the respondents, political and social aspects of human rights are highly dependent on technical advancement and digitalization. This reveals that technical advancement helps the government to protect different human rights.

The Impact of Technological Advancement on Society and Politics

Technological advancement creates a path for individuals to learn, communicate and think broadly and help society to determine how their people interact with each other regularly. In that context, Akram and Kumar (2017), citizens get more aware and concerned about their rights and action. Therefore, technological advancement helps citizens to become aware of different issues of each other that are connected with human rights. Therefore, the citizen becomes aware, and society gets more concerned about maintaining different types of human rights-related laws and acts in the country. In contrast to this, Mbazira and Namatovu (2018) have commented that social justice and behavior of the individuals in social context becomes more dedicated and flexible. This has an impact on the political parties that are living as a government since citizens are more content when their government and jurisdiction make judgments regarding human rights and improves various situations that are experienced by different citizens and growing challenges for them. As a result, question 3 of this paper is concerned with whether or not politics has an impact on human rights, and 51.3% of the respondents agree with this idea.

DISCUSSION

Technological advancement is increasing the connectivity among different individuals all around the world, and digitalization is promoting different human rights cases. This is how human rights are promoted due to technological advancement. According to Bennett *et al.* (2017), human contacts are affecting human rights-related promotion at the global level. In addition, de Witte *et al.* (2018) have stated that human rights give access to freedom and identify the different human rights-related acts that have been promoted due to digitalization. In this way, technological advancement creates awareness about human rights and their management in the global platform.

Human Rights Promotion

With different kinds of technologies, the government can conduct different awareness programs that are concerned about human rights in their country. Moreover, the government does not need to take care of their citizens by being available at their doorstep. According to McDougall *et al.* (2018), the government due to different digital and technological advancements acknowledges violations of different human rights-related acts. As a result, the politicians can be concerned about different issues of human rights easily and create mitigation strategies at this point. In contrast to this, Maphumulo and Bhengu (2019) have stated that the use of human resources by the government may care due to technological advancement. This is also able to improve human rights management in any country.

CONCLUSION

It can be concluded that technological advancement can increase awareness among the citizens, which makes on their position regarding human rights. This makes the role of the government easy to maintain human rights in their countries along that violation of human rights due to political purposes get reduced as the technological advancement is being increased. Therefore, the survey is helping to prove that different political and societal aspects regarding human rights management are getting enhanced and positively affected by the utilization of technological advancement. Therefore, the survey evaluated the practical experiences of the respondents regarding the positive impact of technological advancement on human rights.

This is quantifiable by the number of basic liberties infringement cases. Regular analysis of different human rights-related cases and takes fair decisions will attain this recommendation. This will help the political leaders to stay connected with citizens within 2 to 3 weeks. The political leaders are being recommended to promote human rights acts on a digital platform for improving awareness. To promote human rights acts on digital platforms they have to talk about these rights on social media. The reduced issues regarding human rights violations will measure this. This can be achieved by sorting out week-by-week plans for advancements, the expected goals.

Time management has been a critical limitation for the current research. The data could be analyzed in a better way, and the population strength of the research could be enhanced more if more time could be spent on this research. Moreover, secondary research has not been done parallel with the primary research due to lack of time. The research could get more data that are valuable if secondary research could be done.

Flick (2013) mentioned that research limitations prevent the research from meeting the research requirement and make the research successful and highly appreciable. Small sample size and population size also have been a limitation for this

research. In future research, the description of different innovative technologies that impact human rights and social advancement can be made. Moreover, the future use of technological advancements in politics can be analyzed by mentioning the different technologies evaluated in future research papers. As per Mohajan's (2018) viewpoint, future research indicates the research gap of the current research paper that can be overcome in the next research paper.

COMPLIANCE WITH ETHICAL STANDARDS

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Statement of human rights:
All procedures performed in studies involving human participants were following the ethical standards of the institutional and/or national research committee and with the Declaration of Helsinki and its later amendments or comparable ethical standards.

Statement on the welfare of animals:
This article does not contain any studies with animals performed by any of the authors.

Informed consent:
Not applicable.

REFERENCES

1. Akram, W. and Kumar, R., (2017). A study on positive and negative effects of social media on society. *International Journal of Computer Sciences and Engineering*, *5*(10), pp.351-354.
2. Bennett, B., McDonald, F., Beattie, E., Carney, T., Freckelton, I., White, B., and Willmott, L., (2017). Assistive technologies for people with dementia: ethical considerations. *Bulletin of the World Health Organization*, *95*(11), p.749.
3. de Witte, L., Steel, E., Gupta, S., Ramos, V.D. and Roentgen, U., (2018). Assistive technology provision: towards an international framework for assuring availability and accessibility of affordable high-quality assistive technology. *Disability and Rehabilitation: Assistive Technology*, *13*(5), pp.467-472.
4. Flick, U. ed., 2013. *The SAGE handbook of qualitative data analysis*. Sage.
5. Ienca, M. and Andorno, R., (2017). Towards new human rights in the age of neuroscience and neurotechnology. *Life sciences, society, and policy*, *13*(1), pp.1-27.
6. Jørgensen, R.F., 2018. Framing human rights: exploring storytelling within internet companies. *Information, Communication & Society*, *21*(3), pp.340-355.
7. Kothari, C.R., 2004. *Research methodology: Methods and techniques*. New Age International.
8. Kumar, R., 2018. *Research methodology: A step-by-step guide for beginners*. Sage.
9. Mahroof, K., (2019). A human-centric perspective exploring the readiness towards smart warehousing: The case of a large retail distribution warehouse. *International Journal of Information Management*, *45*(4), pp.176-190.
10. Maphumulo, W.T. and Bhengu, B.R., (2019). Challenges of quality improvement in the healthcare of South Africa post-apartheid: A critical review. *Curationis*, *42*(1), pp.1-9.
11. Mbazira, C. and Namatovu, T., (2018). Civic space and human rights advocacy in the extractive industry in Uganda: Implications of the 2016 Non-governmental Organisations Act for oil and gas civil society organizations. *African Human Rights Law Journal*, *18*(1), pp.75-99.
12. McDougall, J., Readman, M., and Wilkinson, P., (2018). The uses of (digital) literacy. *Learning, Media and Technology*, *43*(3), pp.263-279.
13. Mohajan, H.K., 2018. Qualitative research methodology in social sciences and related subjects. *Journal of Economic Development, Environment, and People*, *7*(1), pp.23-48.
14. Popenici, S.A. and Kerr, S., (2017). Exploring the impact of artificial intelligence on teaching and learning in higher education. *Research and Practice in Technology Enhanced Learning*, *12*(1), pp.1-13.

15. Risse, M., 2019. Human rights and artificial intelligence: An urgently needed agenda. *Human Rights Quarterly*, *41*(1), pp.1-16.
16. Saberi, S., Kouhizadeh, M., Sarkis, J. and Shen, L., (2019). Blockchain technology and its relationships to sustainable supply chain management. *International Journal of Production Research*, *57*(7), pp.2117-2135.
17. Saunders, M., Lewis, P.H.I.L.I.P. and Thornhill, A.D.R.I.A.N., 2007. Research methods. *Business Students 4th edition Pearson Education Limited, England*.
18. Statista, 2021. The adoption rate of emerging technologies in organizations worldwide as of 2020, by scale. Available at: https://www.statista.com/statistics/661164/worldwide-cio-survey-operational-priorities [Accessed on 30 September 2021]
19. Turner, B.S., 2021. *Vulnerability and human rights*. Penn State University Press.
20. Whyte, J., 2019. *The morals of the market: Human rights and the rise of neoliberalism*. Verso Books.

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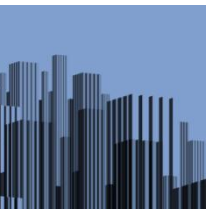

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DIGITAL TECHNOLOGY AND HEALTH ADVOCACY ON COVID-19: A CASE STUDY OF TWITTER HANDLES OF THE WORLD HEALTH ORGANIZATION AND MINISTRY OF HEALTH OF INDIA

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Abstract: *The article has intended to study the action of Twitter-based media advocacy promoted by the Ministry of Health (MOH) of the Government of India, and World Health Organization (WHO) during the Covid-19 pandemic. Its goal was to assess the degree of the WHO and MOH's media campaigning for Covid-19, as well as the public's perception of this advocacy. In this regard, mixed methods have been used for data collection where a survey has been conducted with 125 respondents, who use Twitter, from Kolkata (India) with the help of random sampling. A content analysis of two well-known Twitter accounts was conducted, which helped to reflect the current trends that they follow. The findings of this research have reflected the choice of medium preferred by the respondents for receiving news and information during the Covid-19 pandemic. It has also helped to identify the Twitter handles and tweets they mostly follow and thereby the major factors influencing their choice. The outcome of this research has helped to study whether Twitter can be used for institutionalized health communication or not in the future.*

Keywords: *Digital Communication; Twitter; Health Advocacy; WHO; Ministry of Health; Covid-19; India*

INTRODUCTION

People from throughout the world will see an unprecedented pandemic in 2020. In this situation, we saw the Indian government put in an uncompromising effort to fight the pandemic through inclusive networking within the country and around the world.

Twitter, as the third most popular social media, provides a new ecosystem of public health literacy discussion and sharing attitudes, such as the Covid-19 pandemic.

The 140 character's format is an exceptional form in any communication research - to collect required data and to navigate a new form of interaction with audiences. It is a digital mode of communication with its openness, starlight dealings, and a high degree of authenticity in the information dissemination process. Considering the number of Twitter users, India is the third leading country in the world (Statista 2021). Health communication is a multidisciplinary approach that covers five modalities, like exchange of information, message, an act of communication, and rapport (McQuail 2005). These catalysts will help to give an associative approach to health communication with public health policy, prevention communication, and health education. According to Vilbert (2021) during and after the Covid-19 pandemic, it will be critical to assess the ability of healthcare organizations such as the World Health Organization (WHO) to provide scientific approaches to global health advocacy. Twitter, as the third most popular and engaged social media channel, enables a new ecosystem of the health promotion campaign on Covid-19. Health communication, like other forms of communication, should be built on a two-way exchange of information based on a common set of indicators and behaviors. Furthermore, public health communication should be accessible and foster a sense of shared empathy, understanding, and sympathy among members of the communication team as well as the intended audiences (Schiavo 2013). The current study looked at how major health organizations such as the World Health Organization (WHO) and the Government of India's Ministry of Health and Family Welfare (Ministry of Health; MOH) use Twitter handles to disseminate health information, build relationships, and encourage people to take action to improve their health.

This study has once again contributed to a better knowledge of how a national government and an international organization maintain the digitized message design across different forms of information on the same Covid-19 aspects. As a result, it's essential to conduct a comparative study of the MOH's and WHO's approach to digital communications and their content on public health awareness.

In the event of an emergency, this form of comparative study has recommended how the national government and international organizations must work together to produce and disseminate health and hygiene communication messages. Social media like Twitter enable the public sharing of information with a high degree of transparency. The sharing of information on Twitter can create a communicative and collaborative atmosphere for patients, physicians, and researchers and even improve the quality of care. However, risks involved with using Twitter for healthcare discourse include high rates of misinformation, difficulties in verifying the credibility of sources, overwhelmingly high volumes of information available on Twitter, concerns about professionalism, and the opportunity cost of using physician time. Ultimately, the use of Twitter in healthcare can allow patients, healthcare professionals, and researchers to be more informed, but specific guidelines for appropriate use are necessary.

LITERATURE REVIEW AND RESEARCH GAP

According to Singh (2021), the Ministry of Health focuses on three major strategies namely, communication strategy, components of the advocacy strategy, and strategies of the capacity of health. These strategies will build up a communication-based liaison with a specific group of stakeholders. In this edited volume, a separate chapter reads as 'Managing Digital Media' that includes key actions at state level digital media advocacy and use of WhatsApp for proactive messaging. At the same time, on their official website, the WHO has notified a regular announcement on Coronavirus - about its symptoms, prevention, travel advisory, and common FAQs on Coronavirus, to collect continuous feedback from all around the globe. In this scenario, it was also observed that on an opinion page, the author also explained how to advocate effectively in the age of Covid-19. The paper commented that communicating digitally on Covid-19 comes with an alternative mode of top-down environment. This is because social media advocacy can also succeed through a bottom-up movement. Perhaps it mobilizes voices of perceived communication on Covid-19. Xing and Zhang (2021) argued that an emergency attentiveness and response plan is essential to be incorporated into the health system. Their research work was based on the circumstances of India during the Covid-19 pandemic. They commented that preparedness campaigns have helped drive out misinformation about the Corona Virus from the public. Significantly, the OECD Policy Responses to Covid-19 document (2021) has commented on the role of the government to build up trust in the vaccines and communicate about the benefits of vaccination and how to deliver the vaccine doses safely and effectively throughout the country.

From 10 million in 2013, Twitter uses no have reached around 35 million in India (Statista 2021). This kind of digitized open system may generate 'warfare' between latent and manifest information in a public sphere regarding any advocacy purpose, like health and hygiene (Hamlin 2010). Park *et al.* (2016) focused on approaches to public health literacy in general and in pandemic scenarios. Due to its tremendous growth in users of Twitter over the past few years, the medical professionals, national and international health organizations, and patient parties have been sharing to the world what they had studied for their opinions on public health issues (Pershad *et al.* 2017). Perhaps this is one of the major reasons that Twitter-based public health research gained a significant space in public health and hygiene in the recent past more specifically during the Covid-19 pandemic phase. Since the early XXI century, we have witnessed a critical relationship between globalization and approaches to information and communications technology (ICT) in any development, like public health and hygiene (Hamlin 2010). It may be defined as a new structural and functional public sphere in health communication (Lubenow 2012). The XXI century digitization is the major sphere of communication. Based on this digitization it seemed that dissemination of information in the public

sphere became smooth. Alexey (2019) explained that in any public sphere digitalization is one of the major agendas to ensure a smooth communication process. This form of communication interconnects between hardware and software networks. This is a form of technological hierarchy that builds up a 'digital communication ecology'.

The digital communication networks encapsulate a new notion of advancements and values of information in society. The 'information super highway' creates a subset of information warfare, which are purely ICT-based knowledge networks (Gripsrud and Moe 2010). This pull has been decorated with different forms of digital media like Twitter, blog, discussion site, or video hosting. If we want to investigate the difficulties and techniques of information digitization for public healthcare in general and the Covid-19 pandemic in particular, we must consider financial balance as a major factor in this phenomenon. A relationship between financial balance and digitization of the public health system is too vital to spread quality information on health and hygiene in any developing country like India, considering the societal, cultural, and economic perspective.

Macnamara (2017) explained that in contrast to interpersonal communication, public communication is associated with the communication activities taking place within a public sphere. Twitter is a networking site within a definite public domain that can be said to be used by people in that public sphere. Kappel and Holmen (2019) further argued that in the case of scientific communications taxonomy is essential to be developed in the initial stages for better dissemination of information within this paradigm. It was also opined by del Carmen (2016) that to popularize the concept of scientific communication and cater the required information to the audience it is necessary to use a set of terminology. Mahfouz (2020) pointed out that in the post-globalization era with the original nation of Twitter in 2007 'hashtags' have now become a part of linguistic characteristics of the language used in social networking sites. According to Papa *et al.* (2006), along with the use of new taxonomy through Twitter, in the digital public sphere, the dialectic approaches are also following contradiction, motion, totality, and praxis. Hence, the media, media policies, and public - these three catalysts have formed 'mediated public life', an appearance of social life in the era of digitization Craig (2004).

In 2012, Spires and Bartlett proposed their famous model on 'digital literacy' that comprises three phases of digital content namely locating and consuming, creating, and communicating. This model explains the challenges of ICT-based education in the information age (e-learning platforms). This digital literacy needs both technical and cognitive skills.

Papa *et al.* (2006) explained that an organization is an instrument for social change. In the present crisis the major purpose of the organization, which may be the WHO or Ministry of Health, should provide supportive information so that a group of individuals gains control of its future. Constant interconnection and reciprocal influence

of multiple individual and social factors give the totality of message and help to complete a dialectic action through Twitter (Singhal 2006; Singhal and Rogers 2003).

The power of an international institution like the WHO enables a social actor to influence asymmetrically the decision on various perspectives about coronavirus, of other social actor/s, like ministries or national level institutions (Castells 2011). In this possible power game in any digital information sphere, digital forms of information should be constructed of meaning based on discourses through which social actors guide their actions (Castells 2001). Health communication is a process of interaction that defines how a narrator or communication will be able to convince his/her audience in a persuasive construction. During the Covid-19 pandemic, the major portion of the information network has been dominated by digital technology. Positive perspectives of an open system ensure 'a feedback loop' between human behavior, observational evidence, and reliability of the statement. In any behavioral change in communication, like public health and hygiene, a close system knowledge network may create or increase the degree of confusion instead of public awareness in the public sphere through digitization (Gripsrud 2010).

Research Gap

From the review of existing literature, it has been observed that there is a polarity of opinions given by the authors. Some of the authors have expressed their views in favor of social media and its role in health communication while some of the others have criticized the same. Moreover, the existing researches did not focus on audience analysis to identify if they prefer to accept health communication through Twitter. An advocacy communication pattern based on social media is yet to be studied by analyzing public discourse on health risk communication like the Covid-19 pandemic. This form of media advocacy would bring new approaches that will help to cope up and emerge in the public health community in the digital media sphere. In this paper, two different paradigms, contextual media advocacy, and perceived media advocacy will help to design inclusive public policy initiatives on the Covid-19 pandemic. The research has aimed to shift the focus of media advocacy from media content to the social periphery. It has also tried to explain the changes of policies of digitalized health communication from the international level to the individual level. As a result, it has contributed to the definition of the power gap, knowledge gap, and socio-psychological gap all in one study. It was also noted that the available literature did not conduct a comparison examination of national and international organizations' tweets. The current approach, on the other hand, will design the information-sharing behavior of digital communication in which Twitter serves as an information carrier.

OBJECTIVES

The major objectives of this research are as follows:

1. To review the use of Twitter in the Covid-19 pandemic done by the World Health Organization and Ministry of Health. This systematic review will look into the extent of the WHO and MOH's media campaigning for Covid-19.
2. To determine the difference in the content provided by the WHO and MOH and evaluate their use of taxonomy through tweets regarding the Covid-19 pandemic.
3. To review the role of Twitter in the digital public sphere as a tool for health communication during the Covid-19 pandemic.

METHODOLOGY

Primary Data Collection

This research focuses on the role of Twitter handles of the WHO and MOH in a specified public sphere so it was necessary to collect data from the digital medium as well as from the audience themselves. For this research, the sample population consisted of Twitter users who either regularly or occasionally use this application. Primary data was gathered through a sample survey with a sample size of 125 respondents from Kolkata, which is one of the major cities in India hit by the pandemic outbreak. Questionnaires were distributed to respondents using a Google Form, which was used to collect primary data.

Sampling

This study's sample population is made up of people residing in Kolkata who are regular Twitter users and was chosen at random. Random sampling, as is well known, decreases the scope of sampling error and helps in better data analysis. As a result, for this research, we chose a random sampling method (Wimmer and Dominick 2013). In this regard, 125 respondents were contacted via random sampling to express their opinions on the usage of Twitter as a mode of health communication over other mediums.

Research Ethics

This research adhered to ethical standards such as honesty, integrity, and secrecy and the names of the participants were kept anonymous. Because no psychologically vulnerable people were involved in this study, no other ethics committee was consulted for approval. Furthermore, special precautions have been made to ensure that only adults are permitted to participate in the study, following the guidelines prohibiting

children from participating. The participants had taken part in a survey, and the questions had been carefully designed to ensure that no individuals or communities were harmed in any way throughout the research.

Secondary Data Collection

On a global scale, the World Health Organization's Twitter handle was chosen. On the other side, the MOH's Twitter handle was chosen to reflect health promotion initiatives in India. Both of these Twitter handles had their top 100 posts analyzed till April 28, 2021. This was done to assess the use of 'taxonomy' and its application in India during the peak of Covid-19's second wave. In addition, four important factors or hashtags have been chosen in this regard: #mask; #sanitizer; #socialdistancing; and #vaccine.

Data Analysis

Quantitative data analysis was undertaken along with a graphical depiction of the data to analyze the data collected from the survey. The data were subjected to a percentage analysis to determine the respondents' perceptions of the public sphere. To assess the qualitative data collected from Twitter handles, a content analysis of the top hundred selected posts was undertaken.

RESULTS AND DATA ANALYSIS

Descriptive Statistics

The descriptive statistics were calculated to better understand the sample variation in this research.

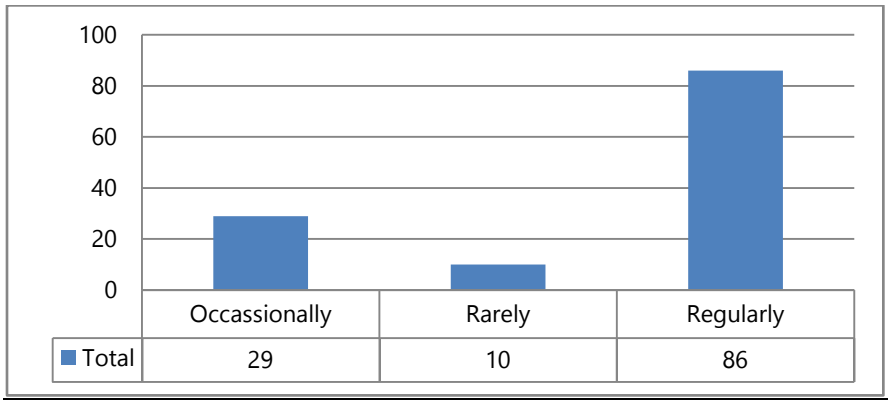
Valid cases = 125; cases with missing value(s) = 0.

Variable	*N*	*Mean*	*S.E. Mean*	*Std Dev*	*Minimum*	*Maximum*
Media_Preference	125	2.50	.10	1.07	1.00	5.00
Type_of_tweets_followed	125	2.66	.11	1.20	1.00	5.00
Preference_For_Covid_updates	125	2.26	.09	1.06	1.00	6.00
Source_of_health_information_through_Twitter	125	2.63	.12	1.37	1.00	6.00

Figure 1: Descriptive Statistics (Source: Online Survey)

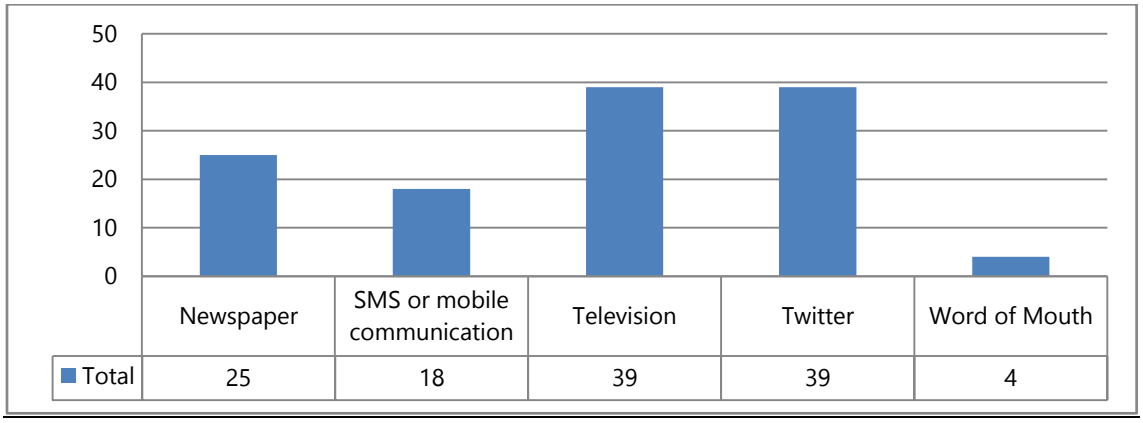
From the mean and standard deviation, it can be observed that there is a low sample variance of this research conducted with the 125 respondents. In this regard, it can be stated that the sample involved with this research is valid.

In the following segments, the perceptions of the respondents have been analyzed using a graphical representation.



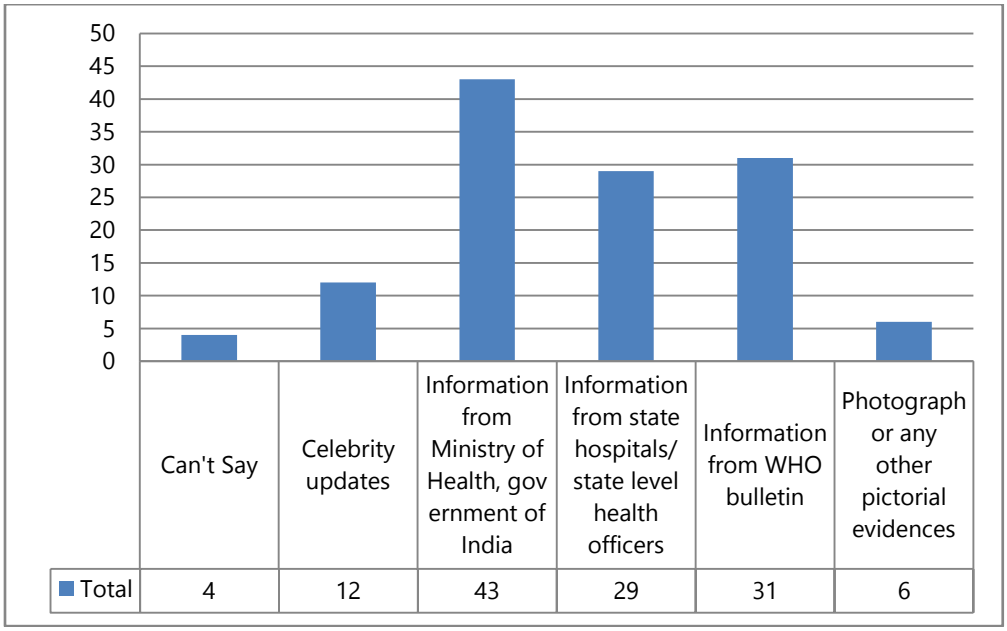
Graphic 1: Frequency of Use of Twitter (Source: Online Survey)

It can be observed that the majority of respondents, that is 86 out of 125 people, use Twitter regularly while some of them use it occasionally and only 10 out of 125 respondents use it rarely.



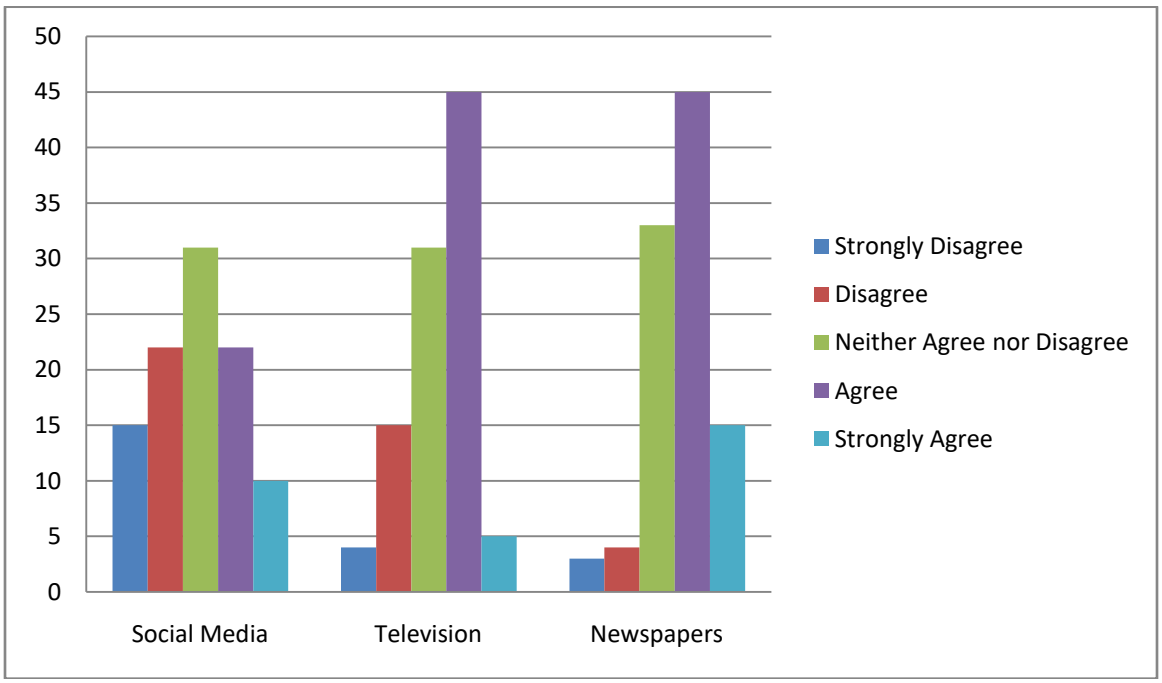
Graphic 2: Choice of Media as a Mode of Health Communication (Source: Online Survey)

In Graphic 2 it is seen that 31.2% of the respondents, that is the majority of them, have a preference for television and social media when it comes to receiving information about health communication. As a result, it can be concluded that, in addition to television, respondents prefer Twitter for health communication.



Graphic 3: Source of Information Mostly Preferred or Followed While Using Twitter (Source: Online Survey)

Finally, Graphic 3 reflects the respondents' preferences for the type of information or source of information they typically rely on while using Twitter. It is observed that the majority of respondents (35.5 percent) rely on information from the Ministry of Health of India, while the second-highest (25.6 percent) rely on information provided by the WHO on Twitter. There are also other popular information sources like information that are provided by local or state hospitals and state-level health officers through Twitter as a local information bulletin and graphical representation which is followed by some of the other respondents.



Graphic 4: Authenticity of Media for Promotion of Scientific Approaches (Source: Online Survey)

The majority of respondents agreed with the statement that newspapers and television promote scientific approaches better than social media, especially in the case of health communication, as shown in Graphic 4. Furthermore, when asked about their attitudes regarding social media, the majority of respondents had a neutral response, indicating that they neither agree nor disagree with the statement.

TWITTER HANDLES CONTENT ANALYSIS

World Health Organization

Image 1: Screenshot of One of WHO's Tweets Posting a Video (Source: WHO 2021)

Image 2: A Tweet from WHO Representing the Vaccination Guidelines (Source: WHO 2021)

From the Twitter handle of the WHO out of the top 100 posts, pictures of two of them have been cited above as examples. It can be observed that the WHO page has more than 60000 tweets with 9.2 billion followers. On the other hand, their approach is broad and covers a variety of countries, rather than focusing solely on India, which is technically impossible for the WHO to do. As a result, it has a proximity lock in some circumstances. The WHO tweets reflect the statistical aspects of the number of cases on the number of recoveries in a specific country. Thus, in this case, the approach is designed considering a holistic approach towards the world in general.

When it comes to word choice or taxonomy, it can be seen that the WHO primarily uses words like 'guidance' or 'guidelines' to issue any post in the public interest. In addition to this, the tweets consisted of words like ‘provide’ and ‘ensure’ which are also taxonomically related to the concept of guidelines. Whether it's the use of masks or the requirement for vaccinations, the WHO serves as a resource for the general public. In the post that was chosen for analysis, the words 'guidelines' and 'guidance' were found to be relatively freely dominating. Also, it was observed that the WHO creates more video than static graphical representations. Because the audiovisual media is believed to be more powerful than the merely visual medium, this increases the possibility of attracting an audience.

Ministry of Health

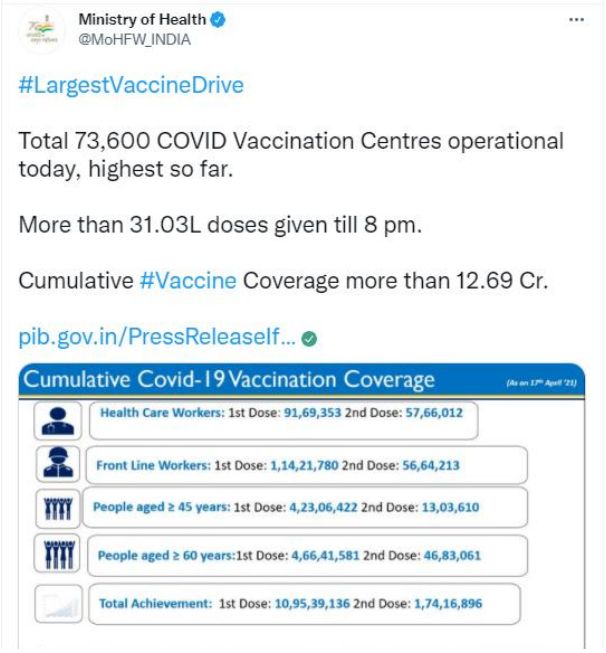


Image 3: Tweets from the Ministry of Health Representing Vaccination Statistics in India (Source: Ministry of Health 2021)

Image 4: A Picture Posted on Twitter by the Ministry of Health to Teach People How to Properly Wear Masks (Source: Ministry of Health 2021)

The Twitter handle of the Ministry of Health does not contain posts about its initiatives or awareness campaigns against Covid-19 but they also re-tweet other politicians and their perspectives. The other above figures are examples of the type of posts that are done by this Twitter handle. The first screenshot of this Ministry of Health shows the statistics of the application of vaccines in India as well as its availability. Even though this image is static and lacks audiovisual interactive design, yet it can be engaging for the Indian audience because of its proximity. In this situation, the second screenshot shows a post by the Ministry of Health to educate people on how to correctly wear masks. If the 'taxonomy' is examined, the term 'learn' has been employed to educate people about wearing masks in this situation. In this regard, it should be noted that the Ministry of Health has been able to construct tweets or posts that are easily engaging for the citizens of India.

COMPARISON OF THE WHO AND MINISTRY OF HEALTH'S TWITTER HANDLES

There are numerous discrepancies between the tweets sent by the MOH and those sent by the WHO, ranging from the usage of color to the languages used. For health advocacy, the WHO has selected a formal mode of taxonomy where words like ‘guidance’ or ‘guidelines’ are mainly used.

On the other hand, for health advocacy, the term 'learn' has been used by the MOH to make people educated about wearing masks. So, unlike the term 'guidelines', 'learn' is more interactive and it evokes the audience to a great extent. Moreover, the MOH has not only used English as a language to design their tweets but it has considerably used 'Hindi', one of the most popular Indian languages, in their tweets as well which can be easily understood by the people of India. Similarly, the WHO has utilized largely blue and white or neutral tones of color in their content, which is another formal method. On the contrary, the MOH has employed colorful representations that are easily comparable to India's colorful and diverse population.

DISCUSSION

From the primary data analysis, it can be observed that the respondents consisted of a mixed group where people from different age groups, gender, and educational level have taken part in the survey (see: Annex I). Some of the respondents have even suffered from Covid-19 themselves or have seen their family members suffering from this disease, unfortunately (see: Annex II). For health communication through Twitter has received the highest number of responses by measuring the preferences of the audience. Yet, it can be further observed that social media is not the only medium that has been highly preferred (Graphic 1). Rather, in this research, both social media and television obtained an equal number of responses. The majority of respondents, on the other hand, agreed that television and newspapers have a greater influence than social media in promoting scientific approaches (Graphic 4). This indicates that, in the opinion of the respondents, television and newspapers are more trustworthy than Twitter.

Based on the findings, it can be deduced that the Ministry of Health is preferred over the WHO when it comes to sharing information. In this case, proximity can be one of the major factors influencing the choice of the Twitter handle by the respondents (Schaal *et al.* 2012). When it comes to a pandemic situation then only propagating information and health and safety guidelines may not be sufficient to engage the public sphere (Davis 2021). From the content analysis, it was seen that audiences prefer to receive more information about their country from the MOH Twitter handle in comparison to the WHO. Furthermore, with content analysis of both the Twitter handles it is clear that the WHO has more followers on Twitter worldwide. They have even developed audiovisual content through videos instead of textual tweets to attract more audience yet taxonomy or the use of language is an important factor to reach out to the selected public sphere.

When the language used by the WHO in its tweets was examined, it was discovered that they were using it as an instructional form, similar to 'guidelines,' to inform people about specific norms or behaviors to follow during the Covid-19

pandemic. On the other hand, the MOH lacks the proper video representation in their tweets. Nonetheless, the Ministry of Health has a more interactive vocabulary, which may make it simpler for people in subaltern and rural areas such as India to grasp and follow the content. For example, if we follow the National Healthcare Communication Programme's (2021) Twitter feed, two subjects emerge: 'Join Twitter now to discover new and interesting conversations about the things that matter most to you, like Covid-19' and 'Covid 19 – government and public officials', have been implying an interactive participatory communication that is based on G2C (Government to Citizens) model. It was also observed that the WHO has very few posts that are focused on any specific country rather the tweets are mainly generalized and consist of information from different parts of the world.

On the other hand, it was observed that the MOH has provided geographical zone-wise specific information through its tweets on vaccination campaigns, vaccination coverage, and even the number of Covid-19 cases in India. This further makes it clear that proximity in content design as well as in disseminating information is crucial when it comes to promoting health communication with the help of Twitter (Bunker *et al.* 2020). In this case, agenda-setting theory can be said to have been applicable. McCombs *et al.* (2014) had emphasized that in the contemporary era network agenda setting plays a pivotal role. In contrast to the WHO, the agenda-setting network of the MOH has potentially reached out to the Indian audience, that is, the public sphere analyzed in this research. Even though Salikov (2019) and Macnamara (2017) had explained the public sphere to be free from geographical boundaries, in a digital space yet this research has proved that proximity of content is more preferred by the audience in case of a pandemic. As a result, it can be stated that the MOH's Twitter handle is chosen due to its content proximity and taxonomy. It is known that taxonomy plays a vital role in making it easy for people to classify the information received from the public domain (Kappel and Holmen 2019). It can be further noted from this study that the WHO and MOH are equally doing health advocacy but they are not equally accepted by the audience due to factors of the proximity of content and content design through tweets.

CONCLUSION

It can be concluded that, in addition to social media, television occupies a significant position in the public realm when it comes to the preferred medium for health communication. It was also found that the inclination of the respondents is more towards local reporting than that of the global scenario when it comes to getting information about the Covid-19 pandemic. This is one of the reasons why the Ministry of Health's Twitter handle is chosen over the WHO's. In this regard, taxonomy and the choice of language played a very crucial role along with the proximity of content that further helped to effective communication through Twitter.

However, it is important to keep in mind that the WHO has a global perspective, which means it may not be possible for the organization to tailor its tweets to a specific country's audience. Because of the result of this research, it is recommended that, in addition to presenting a holistic structure of Twitter content, the WHO should focus on using more interactive language to appeal to its global audiences. Furthermore, in some circumstances, different media are preferable, particularly due to authenticity concerns. As a result, if authenticity and taxonomy are adequately preserved, Twitter could emerge as a powerful medium for pandemic communication. 

COMPLIANCE WITH ETHICAL STANDARDS

Acknowledgments:
Not applicable.

Funding:
Not applicable.

Statement of human rights:
All procedures performed in studies involving human participants were following the ethical standards of the institutional and/or national research committee and with the Declaration of Helsinki and its later amendments or comparable ethical standards.

Statement on the welfare of animals:
This article does not contain any studies with animals performed by any of the authors.

Informed consent:
Informed consent was obtained from all individual participants included in the study.

REFERENCES

1. Alexey, S. (2019). The digital transformation of the public sphere, its features in the context of various political regimes, and its possible influence on political processes. Sociologičeskoe obozrenie, 18(4).
2. Bunker, D., Mirbabaie, M., & Stieglitz, S. (2020). Convergence behavior of bystanders: an analysis of 2016 Munich shooting Twitter crisis communication. arXiv preprint arXiv:2004.08573.
3. Castells, M. (2001). The Internet galaxy: Reflections on the Internet, business, and society. Oxford University Press on Demand.
4. Castells, M. (2011). Communication power. OUP Oxford.
5. Craig, G. (2004). The media, politics, and public life. Allen & Unwin.
6. Davis, M. (2021). The online anti-public sphere. European Journal of Cultural Studies, 24(1), 143-159.
7. del Carmen Sanchez-Mora, M. (2016). Towards a taxonomy for public communication of science activities. The Journal of Science Communication, 15(02).
8. Gripsrud, J., & Moe, H. (2010). The digital public sphere: Challenges for media policy. Nordicom, University of Gothenburg.
9. Hamlin, J. (2010). Epistemology, Pedagogy, and Latent Functions: The Peculiar Nature of Web-Based Public Access Courses. International Journal of Teaching and Learning in Higher Education, 22(3), 357-364.
10. Kappel, K., & Holmen, S. J. (2019). Why science communication, and does it work? A taxonomy of science communication aims and a survey of the empirical evidence. Frontiers in Communication, 4, 55.
11. Lubenow, J. A. (2012). The public sphere 50 years later: Public sphere and mass media in Jürgen Habermas. Problemata: Revista Internacional de Filosofía, 3(2), 228-274.
12. Macnamara, J. (2017). Evaluating public communication: Exploring new models, standards, and best practice. Routledge.
13. Mahfouz, I. (2020). The Linguistic Characteristics and Functions of Hashtags:# Is it a New Language?. Arab World English Journal (AWEJ) Special Issue on CALL, (6).
14. McCombs, M. E., Shaw, D. L., & Weaver, D. H. (2014). New directions in agenda-setting theory and research. Mass communication and society, 17(6), 781-802.
15. McQuail, D. (1987). Mass communication theory: An introduction. Sage Publications, Inc.
16. Ministry of Health. (2021). Twitter. Retrieved 28 April 2021, from https://twitter.com/search?q=Ministry%20of%20Health%20Government%20of%20India&src=typed_query.

17. National Health Communication Programme. (2021). Twitter. Retrieved 30 April 2021, from https://twitter.com/nhcprogramme?lang=en.
18. Papa, M. J., Singhal, A., & Papa, W. H. (2006). Organizing for social change: A dialectic journey of theory and praxis. Sage.
19. Park, H., Reber, B. H., & Chon, M. G. (2016). Tweeting as health communication: health organizations' use of Twitter for health promotion and public engagement. Journal of health communication, 21(2), 188-198.
20. Pershad, Y., Hangge, P. T., Albadawi, H., & Oklu, R. (2018). Social medicine: Twitter in healthcare. Journal of clinical medicine, 7(6), 121.
21. Schaal, M., O'Donovan, J., & Smyth, B. (2012, December). An analysis of topical proximity in the Twitter social graph. In International Conference on Social Informatics (pp. 232-245). Springer, Berlin, Heidelberg.
22. Schiavo, R. (2013). Health communication: From theory to practice (Vol. 217). John Wiley & Sons.
23. Singh, P., 2021. [online] Mohfw.gov.in. Available at: https://www.mohfw.gov.in/pdf/Covid19CommunicationStrategy2020.pdf [Accessed 1 October 2021].
24. Spires, H., & Bartlett, M. (2012). Digital literacies and learning: Designing a path forward. Friday Institute White Paper Series, 5.
25. Statista, 2021. Twitter: most users by country | Statista. [online] Statista. Available at: https://www.statista.com/statistics/242606/number-of-active-twitter-users-in-selected-countries/ [Accessed 1 October 2021].
26. Su, L. Y. F., Scheufele, D. A., Bell, L., Brossard, D., & Xenos, M. A. (2017). Information-sharing and community-building: Exploring the use of Twitter in science public relations. Science Communication, 39(5), 569-597.
27. Vilbert, J., 2021. Global health governance post-Covid-19: time for a hierarchical order?. Journal of Liberty and International Affairs, 7(2), pp.11-30.
28. WHO. (2021). Twitter. Retrieved 28 April 2021, from https://twitter.com/WHO?ref_src=twsrc%5Egoogle%7Ctwcamp%5Eserp%7Ctwgr%5Eauthor.
29. Wimmer, R. D., & Dominick, J. R. (2013). Mass media research. Cengage learning.
30. Xing, C. and Zhang, R., 2021, January. COVID-19 in China: responses, challenges, and implications for the health system. In Healthcare (Vol. 9, No. 1, p. 82). Multidisciplinary Digital Publishing Institute.

Annex I: Demographic Profile of the Respondents

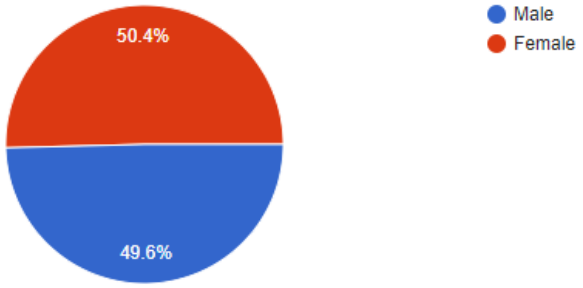


Figure 2: Gender (Source: Online survey)

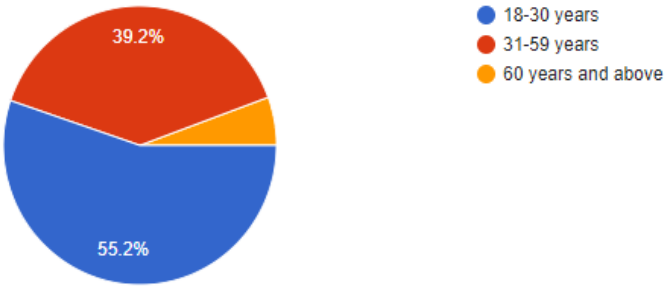


Figure 3: Age (Source: Online survey)

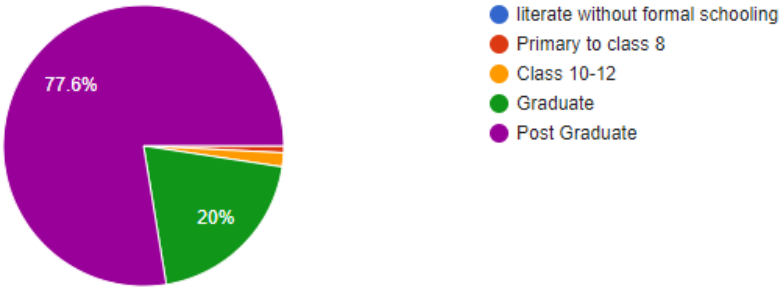


Figure 4: Educational Qualification (Source: Online survey)

Annex II: Health Issues

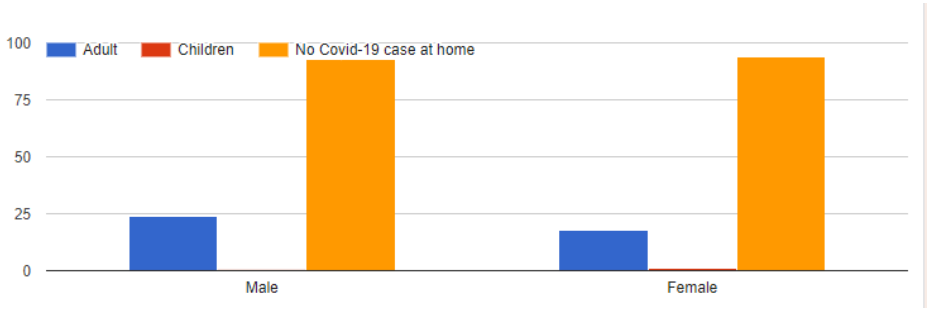


Figure 5: Number of Covid-19 Patients at Home (Source: Online survey)

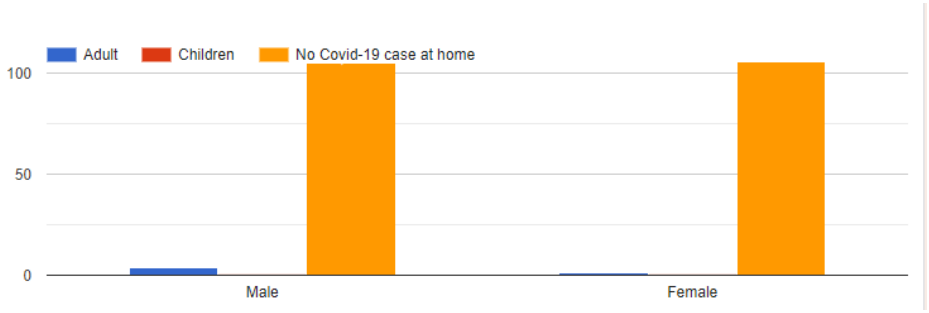


Figure 6: Number of Deaths in Family Due to Covid-19 (Source: Online survey)

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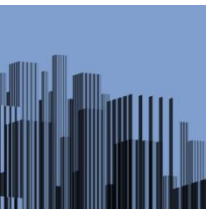

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NEXT GENERATION EUROPEAN UNION AND THE DIGITAL TRANSFORMATION: AN OPPORTUNITY FOR SPAIN

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Abstract: *The main objective of this article is to analyze the importance of digital transformation and the funds provided by way of the Next Generation EU (NGEU) plan, taking into account the Spanish case. Through the working hypothesis, it was established that the Iberian country has a wide margin for improvement in the context of digitalization. Likewise, that NGEU forms a key impulse for the recovery from the crisis caused by Covid-19, as well as for the implementation of new digital technologies in Spain. The use of the Digital Economy and Society Index, developed by the European Commission, has allowed us to carry out empirical research. The evaluation of the current situation and the progress of Spain in the field of analysis, as well as the putting it in perspective regarding the rest of the Member States, have been undertaken. Moreover, the Eurostat database has been employed, in addition to the estimations of the Spanish executive exposed through the Digital Agenda 2025, to examine investment in R&D and intangible assets and try to assess the importance of the EU recovery fund for Spain's development and progress in the digitization framework. Finally, the hypothesis and the objectives have been achieved.*

Keywords: *Digital Transformation; Next Generation; European Union; Spain; Covid-19*

INTRODUCTION

The European recovery instrument forms a coordinated EU fiscal response to the negative effects caused by the deep crisis derived from the Covid-19 pandemic. Organized around two major keys, green and digital, together with the assets of the Multiannual Financial Framework 2021-2027, it aims to promote the relaunch of economic activity and employment in all the Member States of the Union, in addition to reinforcing confidence in the continuity of the European project. Equally, it constitutes an extraordinary effort, given the volume of mobilized resources, and reflects a change

in the paradigm of action that is far from the EU decisions taken in the face of the previous global financial and sovereign debt crisis that specifically affected the Eurozone (Chiodi 2020, 95).

Its implementation opens a long process of structural reforms and transformation, increasing the degree of fiscal responsibility and commitment to macroeconomic stability, seeking to improve the efficiency, equity, and sustainability of European economies, where Spain will foreseeably be one of the most benefited Member States (Bańkowski *et al.* 2021, 6-7). Linked to the increase in the EU's own resources ceiling and the issuance of common European debt, this first-order instrument includes two (mentioned above) specific areas of action. Likewise, the funds are distributed among the Member States according to the degree of need, particularly economic, political and social conditions, as well as recovery and resilience plans. Based on the review of the existing literature, the researches regarding the Next Generation EU plan (NGEU), its design, configuration, and financing are observed.

However, there is a considerable lack of analysis that addresses the EU recovery fund and the value of its digital transition aspect for the development of the particular Member States and their economies. Likewise, works that examine how it can help in the recovery of Spain after the Covid-19 pandemic. Therefore, there is a gap in the academic literature that is being addressed with the help of this research, reflecting the possibilities for Spain generated by the implementation of the NGEU, about digitization.

In this way, the general objective of the paper is to examine the importance of digital transformation and the funds provided through the Next Generation EU plan, taking into account the Spanish case. To this end, a series of specific objectives were also set up: a) to underline the importance of digitization and its potential to change the productive specialization of Member States; b) to highlight the capacity of other factors, specifically the Covid-19 crisis, to accelerate some of the technological trends; c) to indicate the situation and progress of Spain in the field of digitization; d) to study the digital policies of the recovery plan for the EU and the Spanish digital agenda; e) to estimate the possible impact that the NGEU will represent in terms of its digital transformation.

Furthermore, its development allowed to verify the main hypothesis: Spain has a wide margin for improvement in the context of digitization, being the Next Generation EU plan a notable boost for the recovery from the crisis caused by Covid-19, as well as for the implementation of new digital technologies in Spain.

RESEARCH METHODOLOGY

In carrying out the work, the deductive research model was followed (Woiceshyn and Daellenbach 2018). Therefore, taking into account the enormous novelty of the selected topic, wanting to better understand its different aspects and sensitivities, knowing the insufficiency of the information contained in the analyzed literature, as well as seeking to promote the quality of the research proceeded and obtain the most complete conclusions, a mixed methodological design has been chosen (Denzin 1970), always from an interpretive paradigm.

Thus, the first phase of the study was characterized by a detailed analysis of the literature and other sources of information. Next, an interpretation has been made of the results of the Digital Economy and Society Index (DESI), developed by the European Commission, evaluating the current situation and the progress of Spain in the context of digitization, as well as putting it in perspective regarding the rest of the Member States. In addition, the Eurostat database has been used, in addition to the estimates of the Spanish executive presented through the Digital Agenda 2025, to examine investment in Research and Development (R&D) and intangible assets and try to assess the importance of the recovery plan for European funds in the Spanish digital context, ensuring the quality of the obtained conclusions.

THEORETICAL BACKGROUND

Digitization is a powerful concept linked to the development of modern economies that takes its life through the conversion of current operations to digital format. That is the development and implementation of new ways of doing things, both in economic, social, and political processes, enabled by digital tools (Brynjolfsson and McAfee 2015).

Along, digital transformation (in the strict sense) constitutes an integral change in the functioning of an organization resulting from the implementation of digital technologies. From a broader point of view, it is a structural modification in the behavior of consumers, the functioning of companies and other actors (including the state), of the market, and, therefore, the global economy, through datafication (Śledziewska and Włoch 2020, 68). The definitions of this transformation can also be divided into three categories: technological, which emphasize its support in new digital technologies; the organizational ones, which emphasize the change of organizational processes or the creation of new business models; and finally, the social ones, which perceive it as a phenomenon that affects all areas of human life (Reis 2018).

In the same way, the changes that have been emerging in the economy, and under the influence of information and communications technology (ICT), required new conceptual proposals. The economy of knowledge (Machlup 1962) information, internet,

mobile or applications (OECD 2013, 5) has been forming since the 1960s. Nevertheless, the notion of the digital economy, perhaps the most current and which was especially interesting for the development of this research, is relatively recent. In the literature on the subject, depending on the study objectives, a multitude of definitions of this very ambiguous can be found, but at the same time important concept. Due to the nature and purpose of this work, and based on the subjective judgment of the authors, it is considered necessary to highlight some of its essential attributes.

Introduced in the mid-1990s by Don Tapscott, in his book 'The Digital Economy. Rethinking Promise and Peril in the Age of Networked Intelligence', the author defines it through the idea of the network intelligence era. A very ambiguous explanation, where the digital economy is understood as greater connectivity between human beings and intelligent machines through technology. Likewise, the proposal by Erik Brynjolfsson and Brian Kahin, developed in their book 'Understanding the Digital Economy: Data, Tools, and Research', where the authors define it as the last and, to a large extent, not carried out the transformation of all sectors of the economy thanks to computer digitization, it does not clarify much more (Brynjolfsson and Kahin 2000).

As for their first definitions from the Organization for Economic Cooperation and Development (2012) and the European Commission (2013), these international bodies linked the digital economy with the internet economy. However, it is the studies developed by the Economic and Social Research Council, about the impact of the digital economy on economic and social development and based on a review of the definitions identified in the literature on the subject, which allow estimating its main characteristics: it includes goods and services whose production and marketing process depends entirely on digital technologies; it forms a worldwide network of economic activities that are carried out through the use of ICT; it merges general-purpose technologies and different economic and social activities thanks to the use of the Internet and other related technologies; it operates with the help of digital technology, as well as is based on the hyperconnectivity of people, organizations and machines carried out through the Internet, mobile technologies and the Internet of things (Bukht and Heeks 2017, 1-26).

Therefore, it is to be observed that within the digital economy exceptional importance is given to intangible goods (Cañibano *et al.* 1999, 20-21), massive use of data is made, there is a popularity of platforms as a business model, in addition to the difficulties in evaluating which part of the production chain contributes to the final value of the produced goods.

In sum, and according to the report of the International Monetary Fund (2018): "The digitalization of the economic activity can be broadly defined as the incorporation of data and the Internet into production processes and products, new forms of household and government consumption, fixed capital formation, cross-border flows, and finance" (p. 6).

CONTEXT

This growing phenomenon is changing all environments of human activity. At the same time, it raises concerns about its measurement and the possible undervaluation of economic activity linked to digital products. Although this does not specifically conform to the object of study of this research, it is worth indicating that the problems related to its estimation can be seen both with the conceptual limits of the Gross Domestic Product (GDP), the activity of the unregistered digital sector and with the prices of novelty digital products. Additionally, the questioning of the aforementioned GDP calculation methods is reinforced by the presence of low productivity growth in periods of accelerated technological change (Brynjolfsson 1993), while the best estimate of the importance of digitization of the economy could not only help to measure inflation, but also the evolution of the balance of payments and financial values and flows.

Digital transformation has also become a challenge for states and international organizations. National governments, through public policies, are responsible for providing a stable and accessible digital infrastructure for all those involved, this being a basic and essential condition for the proper functioning of the digital economy. In other words, an institutional and legal environment, which encourages innovation and the integration of digital technologies, as well as counts with an educational system capable of preparing society for such transformation and its effects.

The European Parliament (2015) has also underlined that the digital economy is increasingly intertwined with the material economy, making it difficult to differentiate. The ratio of activities in the services, manufacturing, and primary production sectors based on information and communication technologies has been increasing, turning the digital economy into the economy itself. Therefore, it seems clear that digitization, its development, and implementation can modify and influence the productive specialization of states and their economies, especially, its impact on the service sector and its configuration. Enabling its international commercialization, digitization forms a trend whose continuity seems assured thanks to the increasing global connectivity. Also, the use of data, its treatment as a product and service as such, open up many possibilities for improving the competitiveness of both business entities and different sectors as a whole (van Dijck 2014). Nor should be forgotten that worldwide changes in production processes are caused by different factors, not just digitization or automation. Beyond geopolitics and trade relations between great powers, commercial and technological tensions, the crisis caused by Covid-19 has formed an important impulse to accelerate certain technological trends in an unplanned way (Anderton *et al.* 2020, 8). It has not only exposed the weaknesses of the EU and its members but has also formed a lever for joint and coordinated actions, promoting measures that can have longer-term effects.

The most advanced countries, and the ones with the business structures characterized by higher ratios of digitization and robotization, were benefited, presenting better adaptation rates in the face of a slowdown in the global situation and external shocks. Therefore, it is to be expected that economic entities will promote investment in this area, whether in the medium or long term, with the advanced states being the main beneficiaries, both regarding their manufacturing sector (through reshoring processes) and the development of the branch of the services. That is to say, another reflection of the disparity in productive differentiation between developed and emerging countries, the effect of globalization, and the formation of production chains where new technologies will play an important factor in the specialization in question.

Spain: A Country with Room for Improvement in Digitalization

Now, it is convenient to ask ourselves, what is the current situation and progress of Spain in the field of digitization? Estimating the digital scope of a country can be very sensitive, depending on the selected indicators. To do this, taking into account the object of study of this research and seeking to carry out an empirical exercise from an aggregate approach, the interpretation of the results of the European Commission's Digital Economy and Society Index (DESI) has been carried out, estimating the performance of our country in the analyzed context.

Combining the quantitative data from the five DESI indicators (connectivity, human capital, use of internet services, integration of digital technology, as well as digital public services), and as can be seen in Figure 1, Spain has been placed in the eleventh position of the DESI 2020 classification (EU-28), obtaining a score above the EU average (calculated based on data before the Covid-19 pandemic). Evidence of relatively rapid progress, corresponding to the 2015-2020 period, is one of the five Member States with the highest growth in this regard, however, still behind the Nordic countries, leaders in terms of digitization at the Community level.

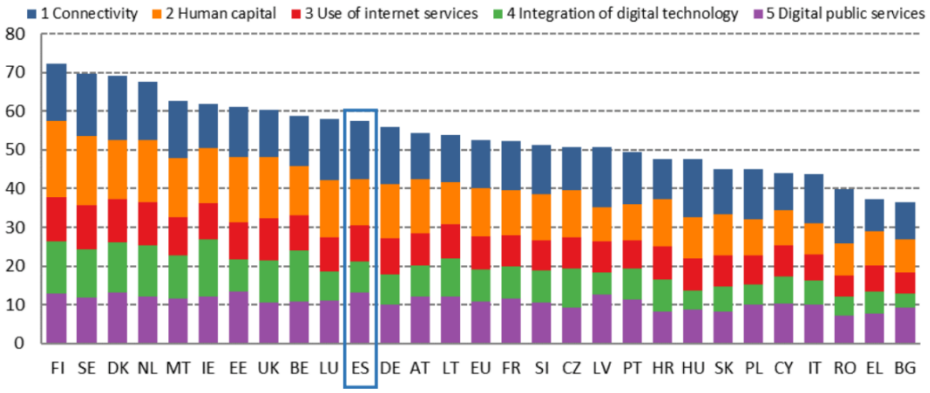

Figure 1: Digital Economy and Society Index 2020 (EU-28) (Source: European Commission 2021a)

As for the partial results, referring to the corresponding pillars of the synthetic indicator in question, it can be said that Spain stands out in two of them. First, digital public services, where it ranks second, having improved its figures since the previous year's ranking. Well above the EU average, and according to Figure 2, open data (90%), the participation of Spaniards in the authorities' digital services (82%), pre-filled forms (80%), the availability of e-government services for business (90%) or the completion of online services (96%) are areas where, once again, the high digital interaction between the public administration, citizens and companies is demonstrated.

	Spain			EU
	DESI 2018 value	DESI 2019 value	DESI 2020 value	DESI 2020 value
5a1 e-Government users % internet users needing to submit forms	**67%** 2017	**76%** 2018	**82%** 2019	**67%** 2019
5a2 Pre-filled forms Score (0 to 100)	**72** 2017	**74** 2018	**80** 2019	**59** 2019
5a3 Online service completion Score (0 to 100)	**95** 2017	**95** 2018	**96** 2019	**90** 2019
5a4 Digital public services for businesses Score (0 to 100) - including domestic and cross-border	**95** 2017	**93** 2018	**93** 2019	**88** 2019
5a5 Open data % of maximum score	**NA**	**NA**	**90%** 2019	**66%** 2019

Figure 2: The Governmental Administration's Digital Transition (EU-28)
(Source: European Commission 2021a)

Likewise, the digital transition of the Spanish central administration is an example to follow. The open data policy and the development of the appropriate computer architecture have made it possible to prepare the services provided for digitization (Government of Spain 2013). Nevertheless, interoperability with sub-national levels of public administration, to avoid possible overlaps in the provided services, remains a pending issue.

In the second place, connectivity, where Spain doubles the EU results, offering a very high-capacity network deployment (89%), despite occupying fifth place in the ranking. The distribution of fiber-optic networks (80%), although there are differences between urban and rural areas, is one of the main characteristics of our country, well above the Community average (34%). 4G coverage (95%) is almost on the same level as the EU average, while the implementation of 5G technology, a crucial technology for the development of the industrial 4.0 paradigm, is still a process in the making. In any case, the deployment of very high-capacity networks and ultra-fast broadband connections are the main qualities of our national environment. The clear demonstration of an ambitious national strategy, a legislative framework focused on supporting commercial investments, the activity of telecommunications operators, as well as a set of subsidies aimed at rural areas with the objective of their greater connectivity.

	Spain			EU
	DESI 2018 value	DESI 2019 value	DESI 2020 value	DESI 2020 value
1a1 Overall fixed broadband take-up % households	73% 2017	77% 2018	78% 2019	78% 2019
1a2 At least 100 Mbps fixed broadband take-up % households	18% 2017	30% 2018	53% 2019	26% 2019
1b1 Fast broadband (NGA) coverage % households	85% 2017	88% 2018	90% 2019	86% 2019
1b2 Fixed Very High Capacity Network (VHCN) coverage % households	71% 2017	77% 2018	89% 2019	44% 2019
1c1 4G coverage % households (average of operators)	92% 2017	94% 2018	95% 2019	96% 2019
1c2 Mobile broadband take-up Subscriptions per 100 people	92 2017	96 2018	99 2019	100 2019
1c3 5G readiness Assigned spectrum as a % of total harmonised 5G spectrum	NA	30% 2019	30% 2020	21% 2020
1d1 Broadband price index Score (0 to 100)	NA	NA	51 2019	64 2019

Figure 3: Connectivity (EU-28) (Source: European Commission 2021a)

Also, the use of internet services presents results that are higher than the EU average. The use of the Internet, the reproduction of music, videos, and online games, as well as the participation in virtual courses, are the most highly valued activities. However, making video calls, reading the news on the Internet, or using social networks are not far from the joint European results either. On the other hand, the use of online banking (60%), making purchases (64%), and online sales (15%) suggests a certain reluctance of Spanish society in the face of the possible benefits of the mentioned services.

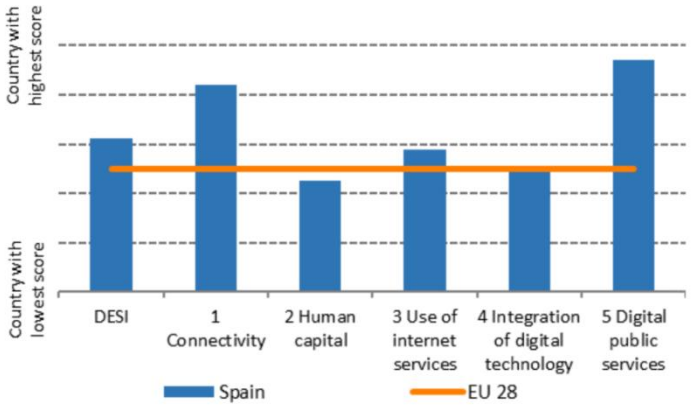

Figure 4: The Breakdown of DESI Digital Indicators 2020 (EU-28) (Source: European Commission 2021a)

On the other hand, if analyzing the digital indicators referring to human capital, it is to be observed that Spain is slightly below the EU as a whole, ranking 16th place. It is worrying that 43% of its population still lacks digital skills, at least at a basic level.

Regarding the percentage of specialists in information and communication technologies (3.2%), women ICT specialists (1.1%), and graduates of the sector (4.0%), although the results are not particularly encouraging, they are not far from the Community average. It is clear that to take full advantage of the opportunities of new technologies, Spain needs to have a sufficient number of properly qualified technicians. Without this, the capacity for innovation and the transition towards a digital economic environment will be slowed down, therefore, it is crucial to increase the number of specialists in the sector, also reducing the gender gap and promoting professional retraining, according to the Agenda Digital Spain 2025, aligned with the Sustainable Development Goals (SDG) and the Agenda 2030.

About the integration of digital technology, the classification of our country and the results obtained coincide with the EU average. Occupying the thirteenth place, Spain provides an environment of opportunities similar to the whole of the European Union. The electronic exchange of information characterizes 43% of Spanish economic entities. But, the analysis of big data (11%), the use of cloud services (16%) or social networks (29%), other qualities, are evidence of the growing gap with European leaders, and its extension during the 2015-2020 period.

As for small and medium-sized enterprises (SMEs), only 19% of them take advantage of the possibility of online sales. Meanwhile, the volume of their business from e-commerce (9%) or online cross-border sales to other EU countries (7%) are not very encouraging results either. The situation that, in general terms, is not observed in the case of large entities and requires special attention given the need to guarantee a solid and sustained economic recovery over time (Eurostat 2020a).

Finally, it must be remembered that not all sectors of the Spanish economy have the same degree of digitization. Thus, the technological development of the information and communication sectors, professional, scientific, and technical activities or tourist accommodation present results similar to those of their European counterparts. On the contrary, the agri-food industry or construction, traditionally, report wide margins for improvement. In conclusion, more efforts are needed in the analyzed field, promoting the digital capabilities of citizens and business entities, especially SMEs, seeking to lead the new 4.0 economy.

Next Generation EU and the Spanish Digitization Policies

As mentioned before, the recovery plan for Europe contains two transversal axes, the green transition, and the digital transformation. The latter, the study object of this research. With the mobilization of the 750 billion euros (equivalent to 5.4 of the Community GDP) foreseen for the payment obligations contracted during the 2021-2023 period, the NGEU forms an unprecedented fiscal stimulus in the context of the European Union.

Throughout the process of its development, the European Commission stipulated the different areas that are considered crucial to promote the degree of digitization of the Member States: the quality of digital structures, enhance the training of the workforce in the digital context, the development and implementation of new technologies within SMEs, the greater distribution of business size and the incentive for the degree of digitization of public administrations in the countries. It forms a priority area of action for the Spanish executive to which it will assign 19,600 million euros (28% of total funds allocated, significantly above the minimum requirement of 20% for the common digital objective) (European Commission 2021b).

In its framework, coinciding with what was highlighted in the previous section, Spain presents weaknesses in access to qualified labor, an aspect that is especially important for our country given the results corresponding to human capital, below the EU average. Also, in the penetration of new technologies in the group of small and medium-sized companies, with a special emphasis on the reduced use of digital technologies on their part. Therefore, the digital transition is central given these especially neuralgic areas that require greater attention, as well as taking into account the weight of its solutions for the growth and modernization of the national productive system, or its configuration as a backbone of the territorial and social cohesion.

Similarly, it is important to highlight the different action plans, framed within the 2025 Digital Agenda, approved to promote the subject of digitization in Spain: the Digitization Plan and the National Plan for Digital Competences (which seek to improve the human capital and promote the technological digitization of the economy); the Connectivity Plan and the Strategy to Promote 5G (through their implementation it is intended to increase the deployment of high-speed broadband internet and the 5G network, providing hyperconnectivity in the national territory, as well as enabling other technologies); the Digitalization Plan for Public Administrations (aspiring to maintain and strengthen Spanish leadership in this scope, it aims to improve the accessibility of public services. Likewise, health or justice make up some of the target areas of its performance); the National Strategy of Artificial Intelligence (AI) (it proposes actions of its scientific development and innovation, in addition to the greater implantation of AI in our productive system, as one of the cutting-edge and most transcendental technologies in the new digital economy).

Through its implementation, the mobilization of 16,250 million euros in public investments is expected. Its 15,400 million will be financed through the recovery plan for Europe and its Recovery and Resilience Facility (RRF). In other words, around 20 billion euros in non-reimbursable transfers to the studied subject if the other smaller programs are added. Also, almost a third of the total funds are to be received from the RRF (69,500 million euros). An ambitious program that coincides with the areas identified by the Commission, but which, in addition to significant deployment of investments and the reach of critical mass by general utility technologies, requires an adaptation of the

legal framework. That is to say, the creation of a favorable and flexible environment for the different economic agents and facilitates their performance, specifically the production processes, in this novel context. Only in this way will it be possible to obtain the maximum growth potential, through the boost of productivity, which facilitates digitization and new technologies, permanently transforming our society and the economy. In practice, the funds provided will serve as a lever of change to face the accumulated fall in Community GDP, uplift private sector investment, modernize the economic system, promote the well-being of vulnerable groups and their training, as well as encourage the digitization of goods and services.

DISCUSSION

After reviewing the situation and progress of Spain in the field of digitization, identifying the needs of our economy in the thematic area, as well as underlining the digital policies of the Next Generation EU and the Spanish digital agenda, it is essential to ask, where will the recovery plan for Europe put us in the digital race? Given that, in general terms, knowledge about the impact of digitization on the economy is limited, the Eurostat database has been used, in addition to the estimates of the Spanish executive exposed through the Digital Agenda 2025, to study the investment in R&D and intangible assets and try to assess the importance of the NGEU funds in the context of our country.

Let us remember that the measurement of the aforementioned assets, non-monetary and without physical substance is not simple either, its definition having been gradually expanded. In any case, they are comprised of digitized information (software and databases), ownership of innovation, or economic competencies (including human capital and the organizational structure of an economic entity) (Mas Ivars 2020, 47). Likewise, investing in them is the basis for the development and implementation of digital technologies, especially artificial intelligence.

However, according to Eurostat data, which can be seen in Figure 5, Community spending (EU-28) on innovation and development was just 2.14% (as a percentage of GDP in 2019), falling below the 3% target set in the Europe 2020 Strategy. In the same way, if Spanish investment is analyzed, it represented 1.25% of the national GDP in 2019, despite having recorded constant growth in previous years.

TIME	2013	2014	2015	2016	2017	2018	2019
GEO (Labels)							
European Union - 27 countries (from 2020)	2,1	2,11	2,13	2,12	2,15	2,18	2,2
European Union - 28 countries (2013-2020)	2,02	2,03	2,04	2,04	2,08	2,11	2,14
European Union - 27 countries (2007-2013)	:	:	:	:	:	:	:
Euro area - 19 countries (from 2015)	2,12	2,14	2,15	2,14	2,18	2,21	2,24
Belgium	2,33	2,37	2,43	2,52	2,67	2,67	2,89
Bulgaria	0,64	0,79	0,95	0,77	0,74	0,76	0,84
Czechia	1,88	1,96	1,92	1,67	1,77	1,9	1,94
Denmark	2,97	2,91	3,06	3,09	2,93	2,97	2,91
Germany (until 1990 former territory of the FRG)	2,84	2,88	2,93	2,94	3,05	3,12	3,18
Estonia	1,71	1,42	1,46	1,23	1,28	1,41	1,61
Ireland	1,57	1,52	1,18	1,17	1,22	1,14	0,78
Greece	0,82	0,84	0,97	1,01	1,15	1,21	1,27
Spain	1,28	1,24	1,22	1,19	1,21	1,24	1,25
France	2,24	2,23	2,27	2,22	2,2	2,2	2,19
Croatia	0,81	0,78	0,84	0,86	0,86	0,97	1,11
Italy	1,3	1,34	1,34	1,37	1,37	1,42	1,45
Cyprus	0,49	0,51	0,48	0,52	0,55	0,62	0,63
Latvia	0,61	0,69	0,62	0,44	0,51	0,64	0,64
Lithuania	0,95	1,03	1,04	0,84	0,9	0,94	1
Luxembourg	1,3	1,27	1,3	1,3	1,27	1,17	1,19
Hungary	1,39	1,35	1,34	1,18	1,32	1,51	1,48
Malta	0,74	0,69	0,72	0,56	0,56	0,6	0,59
Netherlands	2,16	2,17	2,15	2,15	2,18	2,14	2,16
Austria	2,95	3,08	3,05	3,12	3,06	3,14	3,19
Poland	0,88	0,94	1	0,96	1,03	1,21	1,32
Portugal	1,32	1,29	1,24	1,28	1,32	1,35	1,4
Romania	0,39	0,38	0,49	0,48	0,5	0,5	0,48
Slovenia	2,56	2,37	2,2	2,01	1,87	1,95	2,04
Slovakia	0,82	0,88	1,16	0,79	0,89	0,84	0,83
Finland	3,27	3,15	2,87	2,72	2,73	2,76	2,79
Sweden	3,26	3,1	3,22	3,25	3,36	3,32	3,4
United Kingdom	1,62	1,64	1,65	1,66	1,68	1,73	1,76
Turkey	0,81	0,86	0,88	0,94	0,95	1,03	1,06
Russia	1,03	1,07	1,1	:	1,11	0,98	1,03
United States	2,71	2,72	2,71	2,76	2,81	2,82	:
Japan	3,32	3,4	3,28	3,14	3,2	3,28	:

Figure 5: Gross Domestic Expenditure on R&D (2013-2019) (Source: Eurostat database)

If reviewed the investment in intangibles as such, the Spanish endowment was 6.5% (for 2017) placing behind the large economies, not only at the world level but also in Europe. The prevalence of the private over the public sector in its financing is another phenomenon that can be observed in the case of our country. Moreover, the growth of investment in intangibles over GDP in Spain, during the period between 1995 and 2017, was 0.11% per year. Slightly above other developed economies, probably given the enlargement margins existing in their framework in terms of digitization.

Regarding the possible impulse of NGEU in the digital transformation of Spain, taking into consideration its investment in intangibles, as indicated in the previous section, and the investment in digitization planned within the action plans for the 2021-2023period, it will count with 15.4 billion euros from the EU recovery fund. Nevertheless, for the correct calculation of the traction that it can provide on private investment in our country, it is necessary to eliminate the endowment of the Connectivity Plan, the 5G

Plan, and other investments in ICT equipment due to their investment nature in infrastructure, excluded of the endowment computation in intangibles. In total 4,700 million euros. Therefore, in short, we must speak of 10,700 million euros (to be implemented in three years), equivalent to 0.29% of annual GDP (Canals and Carreras 2021, 36).

Following the Digital Agenda 2025, the Spanish Government plans to attract 50,000 million euros in private investment. Excluding, again, the funds allocated to tangibles (within the Connectivity Plan and the 5G Plan), it is 26,000 million euros destined to investment in intangibles. That is an additional tractor effect equivalent to between 0.2% and 0.7% according to the calculations of the Spanish executive. If analyzed the estimates of the European Commission, the carryover result is even broader, between 0.6% and 0.8%. Therefore, adding both contributions, and taking the conservative scenario as a reference, it is between 0.5% and 1.0% of the direct impact of investment in intangibles on Spanish GDP.

Regarding the estimates of the impact of the NGEU funds on the gross domestic product, there is a great difficulty in its calculation. Resources derived from the pull effect are often not considered, due to the difficulty of classifying them according to the types of digital expenditure. In any case, the estimates of the short-term impact provided through the aforementioned entities, range between 0.3% and 0.6% for the States that are the largest beneficiaries of Community aid. In addition, its positive long-term effect is expected, highlighting its potential for digital transformation and economic recovery.

A truly remarkable result, which will make it possible to achieve significant financing of intangibles for the foreseen period, much more modest in the event of the absence of funds from the Next Generation EU or which would take much longer to achieve without the EU's help, modernizing the Spanish economy and increasing its potential growth.

CONCLUSION

Digitization, in addition to being an element of territorial and social cohesion, can provide growth and modernization of the national productive structure, introducing important changes in different sectors of the economy. Likewise, the deep crisis derived from the Covid-19 pandemic has accelerated technological trends in the community context.

Studying the Spanish case, an important advance is observed in the provision of digital public services and the deployment of very high-capacity networks. On the contrary, there is still a wide margin for improvement regarding the global position of our country in terms of innovation and development. Likewise, in terms of digital skills and access to qualified labor, or the digitization of companies, especially SMEs, and their

productivity. Consequently, it can be considered that the digital transition will be a key aspect to attend to these especially neuralgic areas, as well as to strengthen Spanish recovery after the Covid-19 recession.

Regarding the EU recovery fund and its configuration, it constitutes an unprecedented community response. The digital transition, one of its main axes, allows an important boost for the development of states and their economies, making the NGEU even more important in the process of mentioned economic reconstruction.

However, the uncertainty regarding its impact is still high. Despite the many unknowns concerning the details of the financing programs or the potential scope of the implemented measures, it can clearly be said that the magnitude of its actions will be the effect of the impact of public investment projects on the general productive capacity of the economy. Moreover, that the Next Generation EU forms a powerful countercyclical policy and, well used, can bring about substantial changes and permanent benefits.

Finally, the carried-out research constitutes only part of a much broader and more complex scope. The enormous heterogeneity of the analyzed subject and its continuous evolution mean that the presented results shall not be perceived as definitive. In addition, the obtained conclusions, findings, and results should serve as the basis for future investigations to complete the presented vision.

COMPLIANCE WITH ETHICAL STANDARDS

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Statement of human rights:
This article does not contain any studies with human participants performed by any of the authors.

Statement on the welfare of animals:
This article does not contain any studies with animals performed by any of the authors.

Informed consent:
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REFERENCES

1. Alcidi, Cintia, and Gros, Daniel. "Next Generation EU: a large common response to the COVID-19 crisis." *Intereconomics* 55, nº 4 (2020): 202-203.
2. Anderton, Robert, Jarvis, Valerie, Labhard, Vincent, Morgan, Julian, Petroulakis, Filippos, and Vivia, Lara. "Virtually everywhere? Digitalization and the euro area and EU economies." *OccasionalPaper Series*, nº 244 (2020): 1-137.
3. Arce, Óscar, Kataryniuk, Iván, Marín, Paloma, and Pérez, Javier J. "Reflexiones sobre el diseño de un Fondo de Recuperación Europeo." *Banco de España: Documentos ocasionales*, nº 2014 (2020): 1-25.
4. Bańkowski, Krzysztof, Ferdinandusse, Marien, Hauptmeier, Sebastian, Jacquinot, Pascal, and Valenta, Vilém. "The macroeconomic impact of the Next Generation EU instrument on the euro area." *European Central Bank: Occasional Paper Series*, nº 255 (2021): 1-23.
5. Brynjolfsson, Erik. "The Productivity Paradox of Information Technology: Review and Assessment." *Communications of ACM* 36, nº 12 (1993): 66-77.
6. Brynjolfsson, Erik, and Kahin, B. *Understanding the Digital Economy: Data, Tools, and Research*. Cambridge: MIT Press, 2000.
7. Brynjolfsson, Erik, and McAfee, Andrew P. "La digitalización de prácticamente todo." *Harvard Deusto Business Review*, nº 215 (2015): 18-27.
8. Bukht, Rumana, and Heeks, Richard. "Defining, Conceptualising and Measuring the Digital Economy." *GDI Development Informatics Working Papers*, nº 68 (2017): 1-24.
9. Canals, Claudia, and Carreras, Oriol. "NGEU: un impulso a la digitalización muy oportuno." *La Caixa Bank Research: Informe Mensual*, nº 454 (2021): 35-36.
10. Cañibano, Leandro, García-Ayuso Covarsí, Manuel, and Sánchez, Mª Paloma. "La relevancia de los intangibles para la valoración y la gestión de empresas: revisión de la literatura." *Revista española de financiación y contabilidad*, nº 100 (1999): 17-88.
11. Chiodi, Francesco Maria. "Next Generation EU. Una oportunidad para una Europa más fuerte." *Revista Cultura Económica*, nº 100 (2020): 95-120.
12. Denzin, Norman. *Sociological Methods: a Source Book*. Chicago: Aldine, 1970.
13. European Commission. *Digital Economy and Society Index (DESI) 2020*. Brussels, 2021a.
14. European Commission. *Analysis of the recovery and resilience plan of Spain*. Brussels, 2021b.
15. European Commission. *Europe´s Digital Decade: Commission sets the course towards a digitally empowered Europe by 2030*. Brussels, 2021c.
16. European Commission. *White Paper on Artificial Intelligence - A European approach to excellence and trust*. Brussels, 2020.

17. European Commission. *Expert Group on Taxation of the Digital Economy*. Brussels 2013.
18. European Commission. *Europe 2020. A strategy for smart, sustainable, and inclusive growth*. Brussels 2010.
19. European Parliament. *Challenges for Competition Policy in a Digitalised Economy*. Brussels, 2015.
20. Eurostat. Estadísticas sobre sociedad y economía digital. Bruselas, 2020a.
21. Eurostat. Estadísticas de inversión y desarrollo. Bruselas, 2020b.
22. Government of Spain. *España 2050 Fundamentos y propuestas para una Estrategia Nacional de Largo Plazo*. Madrid, 2021.
23. Government of Spain. *Agenda España Digital 2025*. Madrid, 2020.
24. Government of Spain. *Plan de Transformación Digital de la Administración General del Estado y Sus Organismos Públicos 2015-2020*. Madrid, 2013.
25. Hidalgo-Pérez, Manuel: "La Unión Europea ante la Cuarta Revolución Tecnológica" In *La unión hace la fuerza: Europa ante los desafíos del siglo XXI*, edited by Anchuelo Crego, Álvaro, Feas Costilla, Enrique, and Steinberg, Federico, 61-79. Barcelona: EdicionesDeusto, 2019.
26. International Monetary Fund. *Measuring the Digital Economy*. Washington DC: IMF, 2018.
27. Ladi, Stella, and Tsarouhas, Dimitris. "EU economic governance and Covid-19: policy learning and windows of opportunity." *Journal of European Integration* 42, nº 8 (2020): 1041-1056.
28. Machlup, Fritz. *The Production and Distribution of Knowledge in the United States*. Princeton: Princeton University Press, 1962.
29. Mas Ivars, Matilde. "El crecimiento de la productividad y los activos intangibles." *Papeles de economía española*, nº164 (2020): 41-59.
30. OECD, "The App Economy." *OECD Digital EconomyPapers*, nº 230 (2013): 1-57.
31. OECD. *The Digital Economy*. Paris: OECD, 2012.
32. Reis, João. "Digital Transformation: A Literature Review and Guidelines for Future Research." In *Trends and Advances in Information Systems and Technologies*, edited by Rocha, Álvaro, Adeli, Hojjat, Reis, Luis Paulo, and Costanzo, Sandra, 411-421. Berlin: Springer, 2018.
33. Śledziewska, Katarzyna, and Włoch, Renata. *Gospodarkacyfrowa. Jak nowetechnologiezmieniająświat*. Warszawa: WUW, 2020.
34. Tapscott, Don. *The Digital Economy. Rethinking Promise and Peril in the Age of Networked Intelligence*. New York: McGraw-Hill, 1995.
35. van Dijck, José. "Datafication, dataism and dataveillance: Big Data between scientific paradigm and ideology." *Surveillance & Society* 12, nº 2 (2014): 197-208.

36. Woiceshyn, Jaana, and Daellenbach, Urs. "Evaluating inductive vs deductive research in management studies: Implications for authors, editors, and reviewers." *Qualitative Research in Organizations and Management: An International Journal* 13, nº 2 (2018): 183-195.

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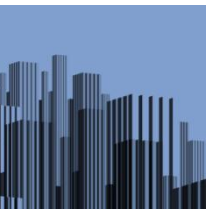

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CHINESE SOCIAL CREDIT SYSTEM: NEW CHALLENGES FOR THE RIGHT TO PRIVACY?

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Abstract: *The Social Credit system (SCS) in China is being applied in an increasing number of areas of everyday life. This system is built around rewarding and punishing specific forms of social behavior. The question arises whether this system is a new challenge to the right to privacy. The study, which is supported by literature, sheds light on how novel this thought is. This paper uses the comparative method, normative method, and legal-logical methods of induction and deduction. According to the research, the SCS in basic is a state project. The key distinctions between the SCS and similar systems in Western countries include the impact on individuals, state dependency, punitive policy, the breadth of consequences, and cultural differences. In addition, one of the tools of the SCS in China is 'shame', which is focused on maintaining harmonious relations within a society. In the West, the focus is more on the citizens' rights.*

Keywords: *Law; Security; Human Rights; Right to Privacy; Social Credit System; China*

INTRODUCTION

In the modern world, there is a constant struggle of individuals and social groups for better protection of human rights (HR), especially the right to privacy. Under the growing influence of Information and Communications Technology (ICT), some new forms of systemic solutions that directly affect HR have appeared. Namely, back in 2014, the Chinese government, intending to create a new form of social control of citizen's behavior, presented a system with the impressive name of 'Social Credit System' (SCS), which came to life in 2020. Today, this system is experiencing a dramatic development throughout China and represents a real revolution in the lives of ordinary Chinese citizens, as well as a revolution in terms of economy. This system is based on rewarding and punishing certain types of social behavior. In other words, the behavior of Chinese citizens (including businesspeople) is 'scored': their honor, honesty, and sincerity are measured to determine their further position and privileges in society, based on the obtained result (e.g. getting hospital accommodation under more favorable conditions, traveling abroad by plane, renting an apartment, etc.).

Today, the SCS in China is being applied in an increasing number of areas of everyday life, expanding its reach to foreign workers and companies operating in China, as well as to Chinese workers employed abroad. China's growing economic, political and military power, as well as various initiatives such as the Belt and Road, the New Silk Road, and the like, are leading to an accelerated expansion of its influence around the world (also in Europe and especially on the African continent). It entails legal regulation of certain institutes as well as legal heritage. With this in mind, the question arises whether this will lead to SCS becoming a model that European countries will follow, or even a new alternative to existing orders around the world. In this paper, the authors will try to answer this question, balancing between the, often rigid, attitudes that can be heard in the West regarding the SCS and HR protection in China, and the Chinese understanding that their way of life and understanding of citizens' rights represent an internal issue in which the West should not interfere, with the absence of almost any critical approach to this topic. In addition, the paper will emphasize the significance of existing legal systems that directly or indirectly deal with the ranking of individuals, as well as the differences between the Chinese and Western systems.

The authors of this paper believe that it can be rightly argued that the Chinese SCS is both a great novelty and an upgrade of the Western system, based on various quantitative criteria. At the same time, the authors believe and start with the assumption that the Chinese system will exert influence and lead to changes not just in Western countries, but also around the world.

THE CONCEPT OF SOCIAL CREDIT SYSTEM AS ONE OF THE FORMS OF MASS SURVEILLANCE

One of the evolutionary forms of mass surveillance is the SCS. The term 'social credit' appeared in 2002, when one official wanted to draw a linguistic parallel with social assistance. It is not without reason that the mentioned system, which is essentially based on evaluating and ranking the behavior of officials, businesspeople, and ordinary citizens (with rewards and penalties) has become the subject of wide discussions, not only in the scientific and professional circles in China but also around the globe, primarily in the Western world.

The legal basis of the SCS in China lies in the State Council's 'Notice Concerning the Issuance of the Planning Outline for the Construction of an SCS (2014-2020)'. This document mentions the aim to promote 'integrity in government affairs', 'commercial sincerity', 'social integrity' and 'judicial public trust', which shows that these measures are targeted at individuals (the focus of this paper), as well as companies, judicial organs, and other governmental authorities. It also explains that the ultimate goal is a uniform SCS based on award and penalty mechanisms, presenting this idea in a general sense, with no references to quantitative measures and the collection of online data (Mac Síthigh and Siems 2019). After the publication of this document, various projects were put into practice, which laid further foundations for the SCS. In this regard, the Chinese authorities have created various mechanisms to punish those who violate the current regulations. One example of this would be the decision of the Supreme People's Court on creating public blacklists of persons who defied legally binding judgments, though now there are even more blacklists compiled by other authorities, i.e. the Ministry of Culture and Tourism lists those who have violated transport rules, such as smoking or carrying prohibited items (Mac Síthigh and Siems 2019). Implementation of this system through assigning negative points can also be seen in the situations when an individual does not visit their grandparents regularly, crosses the street during a red light, illegally disposes of garbage, etc. In case they don't respond to court calls, they will be reminded of their obligations every time they pick up the phone.

Following the act from 2014, several cities in China have also started pilot programs for creating their own SCSs, and by July 2018, that number has reached 40. These pilots share an emphasis on inducing moral and law-abiding behavior by incentivizing citizens, businesses, social organizations, and government agencies to adhere to the Law and regulations in selected key enforcement areas such as food safety and environmental protection. Governments publish blacklists for individuals and organizations with especially 'untrustworthy' or illegal behavior, resulting in sanctions such as limited access to high-speed trains and financial services (Kostka 2018). Some examples of the application of the SCS are related to the cities in Shandong Province (Jiangsu and Rongcheng), where the SCS functioned in such a way that each resident

'started' with 1000 points, whereby they could further increase or decrease them depending on their behavior in the community. Thus, citizens could lose points due to traffic violations, drunk driving, or even because of having a second child (given the Chinese policy of one child still present at the time), and they would get positive points for positive behavior in the community, such as caring for the elderly. The overall result would then be transformed into an appropriate status from A to D, which could affect the individual positively or negatively concerning the local authorities (such as preferential access to subsidies, or in the negative case, getting social security or business permits would be hampered or even denied).

The SCS has been evolving over the past few years, and in 2019 the General Office of the State Council issued a set of 'Guiding Opinions on Accelerating the Construction of an SCS to Build a New Credit-Based Supervision Mechanism'. The act was applied to all levels of government in China, not only to the central government but also at the level of provinces, regions, and local authorities. Neither ministries nor commissions within the State Council were exempted from the application of this act. The 2019 State Council guidance focused on government procurement and the market behavior of companies and consumers. However, the information collected from the CCP (Chinese Communist Party) members and officials have contributed to data sets that eventually will be utilized under the State Supervision Law, which was enacted in 2018 to strengthen monitoring of all employees in the public sector, bring about full coverage of state supervision, advance anti-corruption efforts, and modernize the national governance system. The choice of which data to collect determines what actions are rated: regularity of bill payment, customer satisfaction, liquor purchases, books bought, social media posts, sources of purchases, and so forth. The ratings themselves are based on the core socialist values developed by the CCP leadership. Social credit thus involves data-driven analytics systems in which algorithms can determine the consequences of values-based ratings (Catá Backer 2019, 209-214).

Based on the above, it would be a mistake to conceive the SCS as a single, integrated entity. Instead, the term covers an entire ecology of fragmented initiatives that share a basic set of objectives, operational frameworks, and policy language. From the government's perspective, the two prime objectives are improving legal and regulatory compliance, which is the major purpose of the punishment systems, and developing the financial services industry. For the private sector, this created opportunities to develop their scoring systems, which combine the functions of user ratings on platforms and a loyalty scheme (Creemers 2018).

THE CONCEPT OF SOCIAL CREDIT SYSTEM IN THE WEST

After outlining what the SCS in China is, the question arises of how specific such a system is, concerning what already exists in the West. A particularly interesting one would be the question of how much it differs from the credit systems that exist in Western societies. In the West, the Chinese SCS and any systems similar to it seem to be firmly rejected. This system is often characterized as a "tool of totalitarian surveillance" (Ohlberg, Ahmed and Lang 2017), an "invention of a digital totalitarian state" (Mozur 2019), or an embodiment of Orwell's '1984' and Pavlov's dogs: "act like a good citizen, be rewarded and be made to think you're having fun" (Botsman 2017). Nowadays, we can often hear statements that the Chinese SCS is incompatible with the political and cultural values of the West. These claims largely rely on the view that such systems cannot exist in liberal, democratic states of the West, so they can only be established in authoritarian political regimes in which certain forms of controlling the behavior of individuals already exist, such as systems *Dang'an* and *Hukou* (*Dang'an* is a system of records of the performance and attitudes of citizens, while *Hukou* is a system of household registration in China) (Zhang 2012, 503).

Although they involve other goals as well, most credit systems in the West have control, management, and behavior change as their primary goals, thus striving to create certain norms and values in a society. In both China and the West, the SCSs are in some cases voluntary (an individual must log in and log out based on consent – in Uber or Sesame Credit), while in other cases they are mandatory (regardless of personal choice). Furthermore, in both societies SCSs function as reputational systems of individuals or economic entities that are often on the verge of legality, oftentimes even crossing it.

In the West, rating systems are also well known outside credit systems (Mac Síthigh and Siems 2019). They can be easily found in the private sector in companies such as Airbnb, eBay, and Uber, which enable their users to rate each other based on various characteristics, such as politeness, etc. In the same vein, certain technologies follow the health habits of individuals, such as their sports and sleeping habits, and based on this data they categorize and often evaluate people (Frischmann and Selinger 2018). Judging from these examples, rankings nowadays can be found everywhere.

In the West, individuals are also ranked as travelers, clients, students, as well as products. Examples of this are all around us: agencies that deal with tracking devices to record driving patterns; landlords who choose tenants based on 'tenant blacklists' in the rental market (Barker and Silver-Greenberg 2016). The most well-known examples of rating systems are credit scores in the United States (e.g. FICO score) and other countries (e.g. Schufa in Germany), which assess a person's creditworthiness mainly based on financial criteria, and whose scores are often used by banks, insurance, and credit card companies.

Today, thanks to the rapid development of ICT methods, assessing people based on their physical and digital activities is becoming massively widespread in the West (Citron and Pasquale 2014, 1-33; Hurley and Adebayo 2017, 148; Harris 2018; Waszul 2019). However, we can see the expansion of rating systems not only in consumer behavior but in other areas of life as well. Peeple, AdviceRobo, FriendlyScore, and TrustingSocial are just some examples of a growing Western 'scored society'.

The scoring system can also be found in the public sector. It is implemented by public authorities in almost all Western countries, assessing the value, reliability, and credibility of citizens, school tests being the best example. These tests are likely to affect which university a person will enroll in and whether they will find a suitable job; they are in most cases comparative and are graded according to the results of other students. Andrew Yang, an American businessman and a former candidate in the 2020 Democratic Party presidential primaries, recently proposed introducing digital social credit methods. He believes that digital social credits could improve civic engagement and lead to a higher percentage of volunteers; in his proposal, credits can be obtained "by participating in a city fair", "teaching a local student" or "volunteering at a local shelter" (Roose 2018).

The concept of social credit is also mentioned at lower levels of government, such as municipalities, where the idea of using technology to incentivize good citizenship by creating a catalog of 'good deeds' has been promoted. Examples of these good deeds include voting, helping the elderly, attending first aid courses, organizing cultural events, and attending self-employment workshops. One idea suggests that citizens can choose and apply the good deeds from the municipal catalog, which will then be recorded and evaluated; based on the results, each citizen will receive a reward from the "municipal benefits" (Catalog of Good Deeds: Building Civil Society Through Daily Acts of Kindness 2016) catalog. The mentioned awards include free public transport and bicycle rental, tickets for cultural events, and communal housing at a reduced cost. Different versions of this system already exist in Barcelona in Spain (Social Coin), Cascais in Portugal (Innovative CityPoints), and Hull in the UK (HullCoin).

THE LEGAL SYSTEM OF THE EUROPEAN UNION (GDPR)

General Data Protection Regulation from 2018 (GDPR) represents a turning point in the protection of personal data in the European Union (EU). Personal data protection has become a noticeable worldwide trend. Any form of data processing must have a legal basis and consent; if there is none, such activity is illegal. When it comes to the GDPR, data processing does not require consent when: the processing is necessary to perform a contract between the parties, and the processing is in the legitimate interest of the controller of the data and it does not violate the fundamental rights of the

subject. On the other hand, the Chinese concept is somewhat different from the solutions set by the GDPR.

First of all, the Chinese standard expands the term sensitive personal information by including within this term any personal data that, in case of loss or misuse, may cause damage to personality, property, reputation, or health. Second, when it comes to certain types of consent to the collection of personal data, the GDPR does not require explicit consent to the sharing of data, invoking the legitimate interest of a controller or a third party. Unlike the GDPR, this one is not in the Chinese standard. Third, a significant difference between the Chinese standard and the GDPR is also related to the privacy notice: The Chinese standard is much stricter and is not explicitly stating what information can be omitted from the notice if an individual has access to that data from some other sources, but the privacy notice must be created on a one-by-one basis. Fourth, another difference between the Chinese system concerning the GDPR is that the Chinese standard provides for more detailed requirements concerning security testing and procedures for entities that process personal information. This is because the Chinese data protection system is based on a broader interpretation of the concept of national security risk, unlike the GDPR. Fifth, article 17 of the GDPR is particularly interesting since it regulates the right to be forgotten, i.e. the right to be erased. According to the mentioned article, the data subject has the right to the erasure of their data, and under certain conditions, the operator must delete that data without undue delay. The problem is that the Chinese understanding of the concept of privacy and Western understanding are not identical things. If privacy is seen as the right of people to decide for themselves what information about themselves to share with others, the question arises as to whether this is enough in the XXI century, the century of ICT and social networks.

Given that individuals consciously share a lot of personal data via social networks, as well as the fact that personal data is a 'commodity' sold on the market (even without the knowledge of its owners), the dilemma is whether the existing International Law and technology-neutral GDPR can cover all the ‘loopholes’ that appear in the application of regulations. It seems that the current legal frameworks sometimes give priority to the data collection phase and sometimes to the data processing phase. Therefore, the International legal framework regarding human rights and the protection of personal data contains a shortcoming in its application in certain situations, as well as corresponding procedural shortcomings.

CONCLUSION

It can be concluded that the SCS in China should not be viewed from a black and white perspective, nor as something completely new. If we compare the SCS with EU regulations, primarily with the data protection system set by the GDPR, and practice in western societies, it is noticeable that these are two completely different regimes, and by comparing these two systems we can come to certain conclusions. The main differences between the SCS and existing similar systems in the Western countries are in detail shown in Table 1.

Table 1: The Main Differences Between SCS in China and Western Countries (Source: Authors' depiction)

Systems	State Project	Consequences on the Individual	Main Focus	Data Collector	Image in the Mass Media
Western Countries	NO	Affect a person to a limited extent	Individuals	Private companies and Banks	Negative
China	YES	Affect a person in all areas of life	Society	Primarily state; private companies	Positive

It can be stated with confidence that the SCS in China may significantly help the resolution of numerous problems in society. For example, the SCS can contribute to reducing the crime rate, raising the environmental awareness of Chinese citizens, raising the financial discipline of citizens, leading to greater compliance with traffic regulations, improving the social responsibility of companies, etc.

As a result of good behavior, citizens gain a positive score that opens up other benefits and opportunities. Besides, it can be concluded that if citizens trust large companies or banks to which they entrust piles of personal data, then why should they not trust the state or local authorities. Of course, this could be accepted, provided that the government acts following the proclaimed principles of transparency, justice, and fairness and that large companies (such as Alibaba or Alipay) do not gain too much power in relation to the state. This is not the case only in China, but also in the developed countries of the West, where powerful insurance companies apply similar schemes, i.e. collect data from social networks to determine the number of insurance premiums. Also, private companies very often download citizens' data from other sources, such as state databases. This practice is known not only in China, but also in the United States and Western Europe (for example, in air transport). For example, the development has reached such a point in China that the system of so-called emotional surveillance through brain waves that monitor the behavior of employees has already begun to be widely applied, to help employers increase productivity and profits.

This possibility will certainly be attractive to employers in the West, especially if they manage to overcome the legal obstacles that could be in their way.

Another important feature of the Chinese system is authority: not only that it is all-encompassing, but it is also a state project. Whether certain technologies are used by private or public parties (such as state governments) makes a crucial difference. This is important because the state government, as sovereign on its territory, has a more extensive range of means to reward or punish citizens at its disposals, such as the use of physical force or the power to demand from companies to refuse services. For this project, China is developing a centralized database ecosystem whose sources are both public and private, and the outcome produced from the data has consequences in both the public and private sectors. Data sharing between government institutions and private companies (Alibaba, Tencent, and Baidu) leads to the creation of a centralized database through which many aspects of an individual's public and private life are recorded: commercial data (e.g. shopping habits,) social data (e.g. contacts from social platforms), as well as digital data (e.g. internet search history). Such a huge database will enable China to expand the logic of the system from a 'good citizen' to a 'good person', intending to create not only a 'perfect citizen' but also a 'perfect person'.

One more crucial difference between these two systems is also the consequence it has on the individual. A high or low score or even being blacklisted can have far-reaching consequences for an individual in China. Due to the very scope of the system and the fact that it is implemented by the state, the HR that are affected are basic HR such as the right to education, health, and housing, as well as freedom of movement and freedom of speech. Of course, the consequences of being blacklisted in the West can be severe as well, i.e. person who is classified as dangerous, or has a low FICO score – their basic HR can be potentially violated, even outside the original context in which the assessment is made.

However, one cannot deny the cultural contrasts that exist in these vastly diverse societies. One of the tools of the SCS in China is 'shame', which is considered to be an efficient means of social control, focused on maintaining harmonious relations within a society. In the West, on contrary, the focus is more on citizens' rights (Bedford and Hwang 2003, 127-133; Sheikh 2014, 387-403). While in Western societies there is a low threshold in terms of rights violations, one of the features of Chinese society and culture is a dose of mistrust towards strangers, hence the SCS seems like an appropriate trust-building tool. We can see this difference in the legal solutions that exist in these societies, regarding concerns about the state collection of citizens' data or the state use of data collected by other entities, especially due to many misuses of that data which occurred in the XX century. As a result of these misuses, in the West, especially in the European Union, a large number of legal regulations concerning data protection have been enacted, while provisions dealing with this issue in China are rare and fragmentary (Chen and Cheung 2017, 356).

Another particular part of the problem is the media, especially in the West, which report on the SCS in China in a very negative and sensationalist way for commercial and other reasons. This system contains certain novelties, but it should be emphasized that the accelerated technological development has brought numerous challenges related to respect for HR (primarily the right to privacy and non-discrimination) not only in China but worldwide as well. That is why legislators around the world are facing a great challenge of having to understand modern technologies not only from a strictly legal point of view (which IT experts so often resent) but also have to understand modern technologies and their scope and possibilities. On the other hand, creators of software must also make detailed analyses of the impact of new software concerning International guaranteed HR. Therefore, the media should avoid sensationalist headlines, and rather focus on conducting more detailed analyses of the shortcomings and virtues of the SCS before giving its final assessment.

Besides, the Chinese stance that every society has a sovereign right to its way of life and internal development, and that others should respect that without forcibly imposing their socio-political order, is not without grounds. Although there are opinions that such an attitude is just a good excuse for China to bypass the universally accepted postulates of HR protection, the authors believe that one should avoid such a rigid approach to the SCS, and rather take additional measures to improve it and bring it in line with HR standards.

The very fact that such a system will function in the most populous country in the world will have a great impact worldwide, and therefore it is necessary to pay special attention to it, to inspire the creation of human technologies that respect universally accepted HR as a minimum standard. Such an approach would, in the end, lead to a technically advanced society that respects the rights of its citizens and companies.

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REFERENCES

1. Barker, Kim, and Jessica Silver-Greenberg. 2016. *On Tenant Blacklist, Errors and Renters With Little Recourse.* August 16. Accessed October 25, 2020. https://www.nytimes.com/2016/08/17/nyregion/new-york-housing-tenant-blacklist.html.
2. Bedford, Olwen, and Kwang-Kuo Hwang. 2003. "Guilt and Shame in Chinese Culture: A Cross-cultural Framework from the Perspective of Morality and Identity." *Journal for the Theory of Social Behaviour* 33 (2): 127, 133. doi: https://doi.org/10.1111/1468-5914.00210.
3. *Catalog of Good Deeds: Building Civil Society Through Daily Acts of Kindness.* 2016. Accessed November 29, 2020. https://mayorschallenge.bloomberg.org/ideas/tlalnepantla-de-baz.
4. Chen, Yongxi, and Anne Cheung. 2017. "The Transparent Self Under Big Data Profiling: Privacy and Chinese Legislation on the Social Credit System." *The Journal of Comparative Law* 12: 356. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2992537.
5. Citron, Danielle, and Frank Pasquale. 2014. "The Scored Society: Due Process for Automated Predictions." *Washington Law Review* 89 (1): 1-33.
6. Focal Point Insights. 2019. *Beyond the GDPR: A Look at China's National Data Protection Standard.* June 13. Accessed November 20, 2020. https://blog.focal-point.com/beyond-the-gdpr-a-look-at-chinas-national-data-protection-standard.
7. Frischmann, Brett, and Evan Selinger. 2018. *Re-Engineering Humanity.* Cambridge: Cambridge University Press.
8. Harris, John. 2018. *The tyranny of algorithms is part of our lives: soon they could rate everything we do.* March 5. Accessed November 1, 2020. https://www.theguardian.com/commentisfree/2018/mar/05/algorithms-rate-credit-scores-finances-data.
9. Hurley, Mikella, and Julius Adebayo. 2017. "Credit scoring in the era of Big Data." *Yale Journal of Law and Technology* 18 (1): 148.
10. Kostka, Genia. 2018. *China's Social Credit Systems and Public Opinion: Explaining High Levels of Approval.* December 25. Accessed November 20, 2020. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3215138.
11. Mozur, Paul. 2019. *China invents the digital totalitarian state.* December 18. Accessed October 25, 2020. https://www.independent.co.uk/news/world/asia/china-technology-surveillance-network-totalitarian-state-spy-a9251971.html.
12. Ohlberg, Mareike, Shazeda Ahmed, and Bertram Lang. 2017. "Central planning, local experiments." *Merics.* December 12. Accessed November 10, 2020. https://merics.org/en/report/central-planning-local-experiments.

13. Roose, Kevin. 2018. *His 2020 Campaign Message: The Robots Are Coming.* February 10. Accessed November 29, 2020. https://www.nytimes.com/2018/02/10/technology/his-2020-campaign-message-the-robots-are-coming.html?rref=collection%2Fsectioncollection%2Ftechnology&action=click&contentCollection=technology&region=stream&module=stream_unit&version=latest&contentPlacement=.
14. Sheikh, Sana. 2014. "Cultural Variations in Shame's Responses: A Dynamic Perspective." *Personality and Social Psychology Review* 23 (4): 387-403.
15. Waszul, Yarek. 2019. *A brief history—and future—of credit scores.* July 6. Accessed November 29, 2020. https://www.economist.com/international/2019/07/06/a-brief-history-and-future-of-credit-scores.
16. Zhang, Li. 2012. "Economic Migration and Urban Citizenship in China: The Role of Points Systems." *Population and Development Review* 38 (3): 503.

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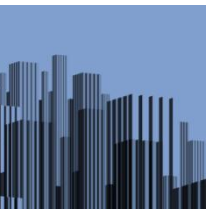

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SOME HUMAN AND TECHNICAL ASPECTS OF ONLINE CONTENT REGULATION

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Abstract: *The amount of newly uploaded content on the internet is growing daily: 60 seconds on the web in 2021 consist of more than 500 hours of content uploaded on YouTube, 695,000 stories shared on Instagram, and nearly 70 million messages sent via WhatsApp and Facebook Messenger. The vast majority of them is legal content, but a slice is illegal or harmful. The article analyses the situation and the problems of both human and AI moderation, then it gives an answer how to handle the content on the internet with a shared usage of human and AI moderation as they could perfectly complement each other in a long term.*

Keywords: *Artificial Intelligence; Moderation; Content Regulation; Facebook; Shared Usage*

INTRODUCTION

Between 1612 and 1614, the world-famous Flemish painter Peter Paul Rubens painted his painting 'Deposition from the Cross' and around 1614-15 he painted 'Venus in front of the Mirror'. It was probably not only because of the obscurity of social media at the time that he never imagined that his painting – or, more precisely, the events surrounding it – would make a company an object of ridicule a few centuries later. In 2018, the state-owned Flemish Tourist Office launched an advertising campaign on Facebook using these two images, but Facebook removed both paintings because they contained gratuitous nudity. In a letter to the company, the Office wrote: "Even though we secretly have to laugh about it your cultural censorship is making life rather difficult for us" (Frieze 2018).[1] Previously Gustave Courbet's 1866 painting 'The Origin of the World' (which was the subject of an eight-year court case in France[2]) or the photo of

[1] It should be added, however, that the events saw a fortunate increase in traffic to Flemish museums during the period, and the office produced a video mocking Facebook's policy called 'Social media doesn't want you to see Rubens' paintings', https://www.youtube.com/watch?v=UZq3cVgU5AI

[2] For the interesting case that ended in a settlement between the parties, see: Cascone 2019.

Venus de Willendorf met the same fate (Dawson 2018), as the explicit depiction of nude body parts was deemed pornography by the company's Community Standards (CS) moderation guidelines. But it's not just paintings that have faced a similar situation: the iconic statue of the Little Mermaid in the Danish capital, Copenhagen was also removed because it contained too much bare skin or sexual undertones. A painting of Santa Claus kneeling before baby Jesus in a manger has also been removed for violent content (Stagnaro 2018). But it's also easy to imagine being banned for a photo of a cat: a user had his account blocked in 2016 for sharing a picture of a cat in a suit. The reasons were unknown to the public (Moore 2016). Also, at the request of the United States' police forces, some content in which a black woman took a video of white police officers has been taken down (Karr 2016). The list goes on and on.

For all these reasons, and as a result of the campaign by the US NGO 'National Coalition Against Censorship', Facebook agreed that CS needed to be reviewed, but the process was time-consuming.[3] As Daily Mail genuinely pointed out: "after all, a butt is a butt and a nipple is a nipple. But deciding when a nipple is an art, porn or protest gets murky even when humans are doing the deciding. Teaching AI software about human sexual desire is a whole other ballgame" (Daily Mail Online 2020).

But why should be all these examples interesting to all of us?

Facebook had 2.8 billion users in 2020 and the company "generates 4 petabytes of data per day – that's a million gigabytes. All that data is stored in what is known as the Hive, which contains about 300 petabytes of data" (Roy 2020). Whilst, "60 seconds on the web in 2021 consist of more than 500 hours of content uploaded on YouTube, 695,000 stories shared on Instagram and nearly 70 million messages sent via WhatsApp and Facebook Messenger" (Jenik 2021). Much of this vast amount of data is legitimate content, but even the small amount that shouldn't be there is still huge. The inspection of this content should be handled somehow.

FACEBOOK MODERATION GUIDELINES OR CONTENT IN QUESTION

In the preamble to the moderation policy, the company states: "We take our role seriously in keeping abuse off the service. (...) The goal of our Community Standards is to create a place for expression and give people a voice".[4] The Community Standards (CS) identifies four core values that it follows and expects all its users to adhere to authenticity, security, privacy, and dignity. The CS has five categories for the types of content it does not wish to host on its platform (Facebook 2021):

a) Violence and crime:

[3] Angelo Stagnaro probably misunderstood the process as he writes: "Facebook has had a long history of censoring Christian organizations and individuals, flagging our beliefs as being 'hateful' or otherwise inappropriate, but it is their actions and inaction that is most accurately branded as hateful" (Stagnaro 2018).
[4] Facebook 2021.

a. Violence and incitement;
b. Dangerous individuals and organizations;
c. Coordinating harm and publicizing crime;
d. Regulated goods;
e. Fraud and deception.

b) Security:
   a. Suicide and self-injury;
   b. Child sexual exploitation, abuse, and nudity;
   c. Sexual exploitation of adults;
   d. Bullying and harassment;
   e. Human exploitation;
   f. Privacy violations and image privacy rights.

c) Objectionable content:
   a. Hate speech;
   b. Violent and graphic content;
   c. Adult nudity and sexual activity;
   d. Sexual solicitation.

d) Integrity and credibility:
   a. Spam;
   b. False news;
   c. Manipulated media.

e) Respect for intellectual property:
   a. Intellectual property infringement.

These are the types of content where the legislator often encounters difficulties. However, it should be pointed out that in the era of 'privatization' of content regulation (Hinzt 2015), these issues were the responsibility of the service providers only, so it is not particularly surprising that CS is constantly changing. In 2018, after a long time and many complaints, Facebook made its moderation policies public, as Mónika Pintér (2018) put it so eloquently: "if Facebook is a country, here is its new constitution".[5] The big change was not just the publicity, but also the fact that the internal policies that govern the company's content regulation practices were made public. This means that content is classified using a combination of artificial intelligence (AI) and human intervention: together they are the first line of defense in the war against unsolicited

[5] Cf. the term 'Facebookistan' coined by Rebecca MacKinnon (2013).

content. But why only the first line of defense, one may ask. Tarleton Gillespie (2018) in his book: 'Custodians of the internet: platforms, content moderation, and the hidden decisions that shape social media', compared the actors involved in moderation to a pyramid, each with their role to play:

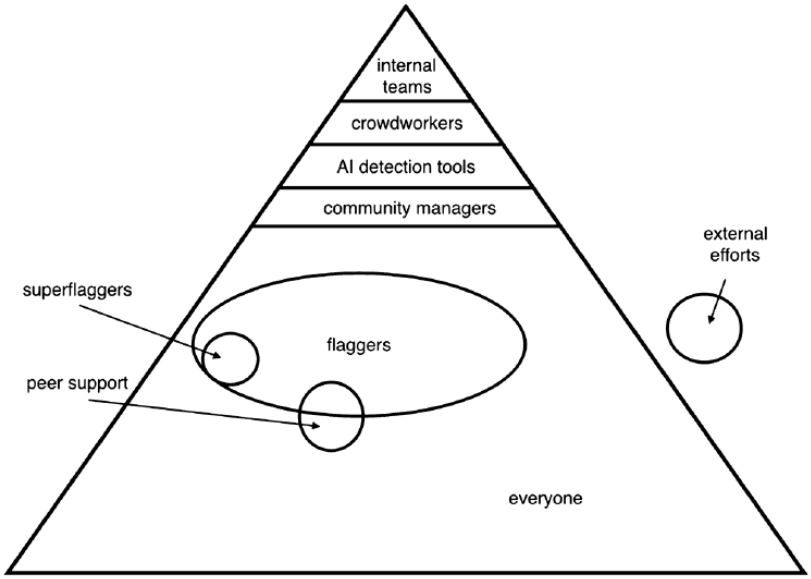

Figure 1: Pyramid of participants in content management (Source: Gillespie 2018)

MODERATION USING ARTIFICIAL INTELLIGENCE

Artificial intelligence[6] in its current form still has many difficulties to overcome context, irony, slang, etc. It "is very good at identifying porn, spam, and fake accounts, but it's still not great at identifying hate speech" (Koebler and Cox 2018). Users create content in over a hundred languages and, in its current form, AI is not yet capable of interpreting more complex content. But the need is obvious: there is not enough human workload that could handle the amount of data in the 2020s. Facebook „says its AI tools – many of which are trained with data from its human moderation team – detect nearly 100 percent of spam, and that 99.5 percent of terrorist-related removals, 98.5 percent of fake accounts, 96 percent of adult nudity and sexual activity, and 86 percent of graphic violence-related removals are detected by AI, not users" (Koebler and Cox 2018).

In contrast to all these figures, AI was only able to correctly detect, interpret and manage 36 percent of hate speech content.[7] Concerning the process, Thiago Dias Oliva

[6] It should be stressed that although the term 'artificial intelligence' is used in public discourse, it "can refer to the use of a variety of automated processes at different phases of content moderation" (Llansó *et al.* 2020).
[7] Joaquin Quiñonero Candela, a Director of AI at Facebook was interviewed about the shortcomings of Facebook and its use of AI (Hao 2021).

also points out that "whilst traditional law enforcement encompasses detection, prosecution, adjudication and punishment performed by different actors, algorithmic content policing does that all at once, focusing on early detection and prevention in a less transparent fashion" (Dias Oliva 2020). In April 2021, the United States Federal Trade Commission issued a statement warning that there are also worrying racial and gender biases associated with AI (Jillson 2021). Kinga Sorbán (2021) also points to the dangers of automated filtering systems and freedom of speech. In addition to all this, Jack M. Balkin ironically points to the economic rationality that "algorithmic employees cost even less than human employees: they do not have families, they do not take coffee breaks" (Balkin 2018).

Emma Llansó *et al.* (2020) summarised the legislative dilemmas related to the use of AI as follows:

- In the public discourse, moderation by artificial intelligence should be replaced by something else that takes into account a broader range of automated technologies and processes.
- Automation in content moderation should not be mandated in law because the state of the art is neither reliable nor effective.
- Tech companies using automatic moderation should provide more transparency on their procedures.
- Not everything can be solved by automatic moderation.
- As automatic moderation can also lead to conflicts with fundamental rights – most notably the freedom of expression – it is important to ensure that there is no over removal.
- There is no 'neutral' automatic moderation.
- Developing media literacy is crucial to this issue.

MODERATION BY HUMANS

As the exponentially growing amount of content and number of users cannot be handled by artificial intelligence, giant tech companies have responded by hiring more and more people. The change in ten years is almost unimaginable: "at Facebook (...), in 2009, only twelve moderators were in charge of examining the content and deciding content disputes. They tried to make fair decisions on content and conflicts of law posted by the then one hundred and twenty million users" (Huszár 2021). Compare that to 2018: "Facebook employs a total of 7,500 moderators worldwide, a position that now employs 40 percent more than this time last year" (nlc.hu 2018). These workers, called Community Operations (CO), are the ones who review reports from users twenty-four hours a day, and in the vast majority of cases, they manage to process the reports within twenty-four hours. Very little is known about their work, which – companies say – is in their defense against users. The information leaked is generally terrible (post-traumatic

reactions to the content viewed, terrible working conditions, low wages, outsourced workers, constant stress and emotional pressure, mental health problems, and unimaginable fluctuation as a result of all this) (Newton 2019a)[8], to which Mark Zuckerberg reacted as: "some of the reports, I think, are a little overdramatic" (Newton 2019b). On the positive side, however, the company has "a team of four clinical psychologists in three regions to help moderators who regularly encounter violent, abusive content" (hvg.hu 2019). And there are times when it may be needed: based on the reports and the amount of data, it takes roughly thirty seconds to decide on an entry in around 400 cases a day – how to assess and interpret the context of the text in that shortage of time is at least questionable. According to Ruckenstein and Turunen, human moderators are increasingly being treated as machines by tech companies, which will cause problems in the long term concerning the working environment (Ruckenstein and Turunen 2020).

As moderators are not experts in a particular area, Facebook provides them with a guide, with yes/no answers to a series of questions, at the end of which they can decide whether or not to remove content. Context, languages, dialects, and user intent can further complicate the issue. In addition, legislation can vary considerably from country to country, so this 'world guide' is not always useful. This brings us to Kyle Langvardt's question: are we sure that 'privatizing' the decision to regulate content is the right way forward? (Langvart 2017).

CONCLUSION

The United Nations (UN) Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression has issued a report calling for "radical transparency" (UNHRC 2018) from social media providers in the way they make and enforce their rules. Shared use of human moderation alongside AI can filter out one of the most dangerous problems: bias. And although one might think that this is only true for human moderators, there is also the concept of the so-called "discriminatory algorithm" (Turner Lee, Resnick and Barton 2019), which is caused by insufficient data and which, as a consequence, mainly affects minority groups underrepresented in social media. YouTube has also reported, "excessive censorship" of its own AI tools (Barker and Murphy 2020).

The possible solution to moderation is summarised in a report prepared for Ofcom, the regulatory and competition authority for the broadcasting, telecommunications, and postal industries of the United Kingdom:

[8] cf. (Buni and Chemaly 2016).

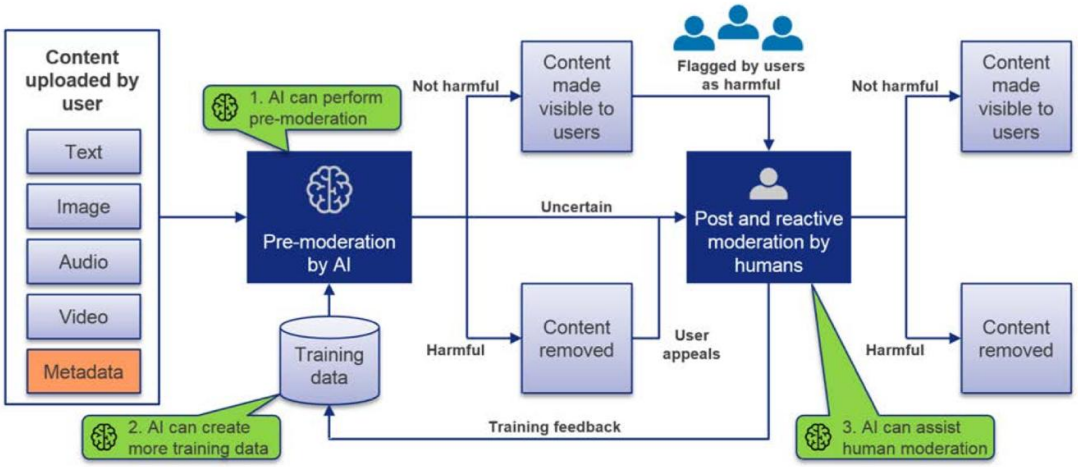

Figure 2: Ideal Flowchart for Moderation (Source: Cambridge Consultants 2019)

According to the study, the use of artificial intelligence can perfectly complement human moderation in three ways:

- AI can be used to improve the pre-moderation stage and flag content for review by humans, increasing moderation accuracy.
- AI can be implemented to synthesize training data to improve pre-moderation performance.
- AI can assist human moderators by increasing their productivity and reducing the potentially harmful effects of content moderation on individual moderators (Cambridge Consultants 2019).

The solution is therefore unlikely to be a choice between human moderation or moderation by AI, but rather a combination of the two in the future. In 2020, during the Covid-19 pandemic – while big tech companies were also requiring employees to work from home and giving artificial intelligence more tasks (Gillespie 2020) – "Facebook and Google roughly doubled the amount of potentially harmful material they removed in the second quarter of this year compared with the three months through March" (Scott and Kayali 2020), and there were many more complaints about the decisions as a result, making it clear that human content scrutiny will not be unnecessary for some time (Barker and Murphy 2020).

COMPLIANCE WITH ETHICAL STANDARDS

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Statement of human rights:
This article does not contain any studies with human participants performed by any of the authors.

Statement on the welfare of animals:
This article does not contain any studies with animals performed by any of the authors.

Informed consent:
Not applicable.

REFERENCES

1. Balkin, Jack M. 2018. „Free speech is a triangle". *Columbia Law Review* 7: 2024.
2. Barker, Alex and Murphy, Hannah. 2020. „YouTube reverts to human moderators in the fight against misinformation". *Financial Times*, September 20. https://www.ft.com/content/e54737c5-8488-4e66-b087-d1ad426ac9fa
3. Buni, Catherine and Chemaly, Soraya. 2016. „The secret rules of the internet. The murky history of moderation, and how it's shaping the future of free speech". *The Verge*, April 13. https://www.theverge.com/2016/4/13/11387934/internet-moderator-history-youtube-facebook-reddit-censorship-free-speech
4. Cambridge Consultants. 2019. „Use of AI in online content moderation" *Ofcom*, https://www.ofcom.org.uk/__data/assets/pdf_file/0028/157249/cambridge-consultants-ai-content-moderation.pdf
5. Cascone, Sarah. 2019. „After an Eight-Year Legal Battle, Facebook Ends Its Dispute With a French School Teacher Who Posted Courbet's 'Origin of the World'". *artnet*, August 5. https://news.artnet.com/art-world/facebook-courbet-lawsuit-ends-1616752
6. Daily Mail Online. 2020. „Do naked bodies belong on Facebook? Tech giant struggles with changing 'vague and unevenly enforced' rules over nudity and body art without suppressing freedom of speech" *Daily Mail Online*, January 15. https://www.dailymail.co.uk/sciencetech/article-7890913/Does-naked-body-belong-Facebook-It-s-complicated.html
7. Dawson, Aimee. 2018. „Facebook censors 30,000-year-old Venus of Willendorf as 'pornographic'". *The Art Newspaper*, February 27. https://www.theartnewspaper.com/news/facebook-censors-famous-30-000-year-old-nude-statue-as-pornographic
8. Dias Oliva, Thiago. 2020. „Content Moderation Technologies: Applying Human Rights Standards to Protect Freedom of Expression". *Human Rights Law Review*4: 612.
9. Facebook. 2021. „Facebook Community Standards", https://transparency.fb.com/en-gb/policies/community-standards
10. Frieze. 2018. „Facebook Censors Rubens Paintings For Nudity" *frieze*, July 24. https://www.frieze.com/article/facebook-censors-rubens-paintings-nudity
11. Gillespie, Tarleton. 2018. *Custodians of the internet: platforms, content moderation, and the hidden decisions that shape social media*. New Haven–London: Yale University Press, 116.
12. Gillespie, Tarleton. 2020. „Content Moderation, AI, and the Question of Scale". *Big Data & Society* 2: 2.
13. Hao, Karen. 2021. „How Facebook got addicted to spreading misinformation", *MIT Technology Review*, March 11,

https://www.technologyreview.com/2021/03/11/1020600/facebook-responsible-ai-misinformation

14. Hintz, Arne. 2015. „Social media censorship privatized regulation, and new restrictions to protest and dissent" In *Critical Perspectives on Social Media and Protest: Between Control and Emancipation*, edited by Dencik, Lina and Leistert, Oliver. London: Rowman & Littlefield,109–126.
15. Huszár, Daniella. 2021. „A véleménynyilvánítás és kifejezés szabadsága a közösségi média platformjain [Freedom of opinion and expression on social media platforms]" *Média Kábel Műhold* 4: 34.
16. hvg.hu. 2019. „Mégis megszólalt a Facebook: így dolgoznak a bejegyzéseinket átnéző moderátorok [Facebook has spoken: this is how moderators reviewing our posts work]" *hvg.hu*, July 29, https://hvg.hu/tudomany/20180728facebookmoderatorbejegyzesekellenorzese
17. Jenik, Claire. 2021. "A Minute on the Internet in 2021". *Statista.com*, July 30, https://www.statista.com/chart/25443/estimated-amount-of-data-created-on-the-internet-in-one-minute
18. Jillson, Elisa. 2021. „Aiming for truth, fairness, and equity in your company's use of AI" *ftc.gov*, April 19. https://www.ftc.gov/news-events/blogs/business-blog/2021/04/aiming-truth-fairness-equity-your-companys-use-ai
19. Karr, Timothy. 2016. „How Censoring Facebook Affects the Fight for Black Lives". *The Root*, August 29. https://www.theroot.com/how-censoring-facebook-affects-the-fight-for-black-live-1790856542
20. Koebler, Jason and Cox, Joseph. 2018. „The Impossible Job: Inside Facebook's Struggle to Moderate Two Billion People". *Vice*, August 23. https://www.vice.com/en/article/xwk9zd/how-facebook-content-moderation-works
21. Langvardt, Kyle. 2017. „Regulating Online Content Moderation". *Georgetown Law Journal* 5: 1387.
22. Llansó, Emma et. al. 2020. *Artificial Intelligence, Content Moderation, and Freedom of Expression.* Transatlantic Working Group. https://www.ivir.nl/publicaties/download/AI-Llanso-Van-Hoboken-Feb-2020.pdf
23. MacKinnon, Rebecca. 2013. Co*nsent of the Networked. The Worldwide Struggle For Internet Freedom*. New York: Basic Books.
24. Moore, Michael. 2016. „Facebook sharing this cat photo could get you BANNED" Daily Express, October 5. https://www.express.co.uk/life-style/science-technology/717978/facebook-bans-user-sharing-cat-photo
25. Newton, Casey. 2019a. „The trauma floor. The secret lives of Facebook moderators in America". *The Verge*, February 25. https://www.theverge.com/2019/2/25/18229714/cognizant-facebook-content-moderator-interviews-trauma-working-conditions-arizona

26. Newton, Casey. 2019b. „Read the full transcript of Mark Zuckerberg's leaked internal Facebook meetings". *The Verge*, October 1. https://www.theverge.com/2019/10/1/20892354/mark-zuckerberg-full-transcript-leaked-facebook-meetings
27. nlc.hu. 2018. „Nyilvánosak a Facebook moderálási alapelvei [Facebook's moderation principles are public]" *nlc.hu*, April 24. https://nlc.hu/szabadido/20180424/facebook-moderalasi-alapelvek-nyilvanos-fellebbezes
28. Pintér, Mónika. 2018. „Ha a Facebook egy ország, itt az új alkotmánya [If Facebook is a country, here is its new constitution]" *24.hu*, April 24. https://24.hu/tech/2018/04/24/facebook-uj-szabalyzat-community-standard
29. Roy, Ankush Sinha. 2020. "How does Facebook handle the 4+ petabytes of data generated per day? Cambridge Analytica – Facebook data scandal". *Medium*, September 16. https://medium.com/@srank2000/how-facebook-handles-the-4-petabyte-of-data-generated-per-day-ab86877956f4
30. Ruckenstein, Minna and Turunen, Linda Lisa Maria. 2020. „Re-Humanizing the Platform: Content Moderators and the Logic of Care". *New Media & Society* 6: 1026–1042.
31. Scott, Mark and Kayali, Laura. 2020. „What happened when humans stopped managing social media content". *Politico*, October 21. https://www.politico.eu/article/facebook-content-moderation-automation
32. Sorbán, Kinga. 2021. „Ethical and legal implications of using AI-powered recommendation systems in streaming services". *Információs Társadalom* 2: 72–73.
33. Stagnaro, Angelo. 2018. „Facebook Censors Image of Santa Kneeling Before Our Lord" *National Catholic Register*, December 26. https://www.ncregister.com/blog/facebook-censors-image-of-santa-kneeling-before-our-lord
34. Turner Lee, Nicol, Resnick, Paul and Barton, Genie. 2019. „Algorithmic bias detection and mitigation: best practices and policies to reduce consumer harms". *Brookings Institution*, May 22. https://www.brookings.edu/research/algorithmic-bias-detection-and-mitigation-best-practices-and-policies-to-reduce-consumer-harms
35. UNHRC. 2018. *Report of the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression.* UN Doc A/HRC/38/35, 64.